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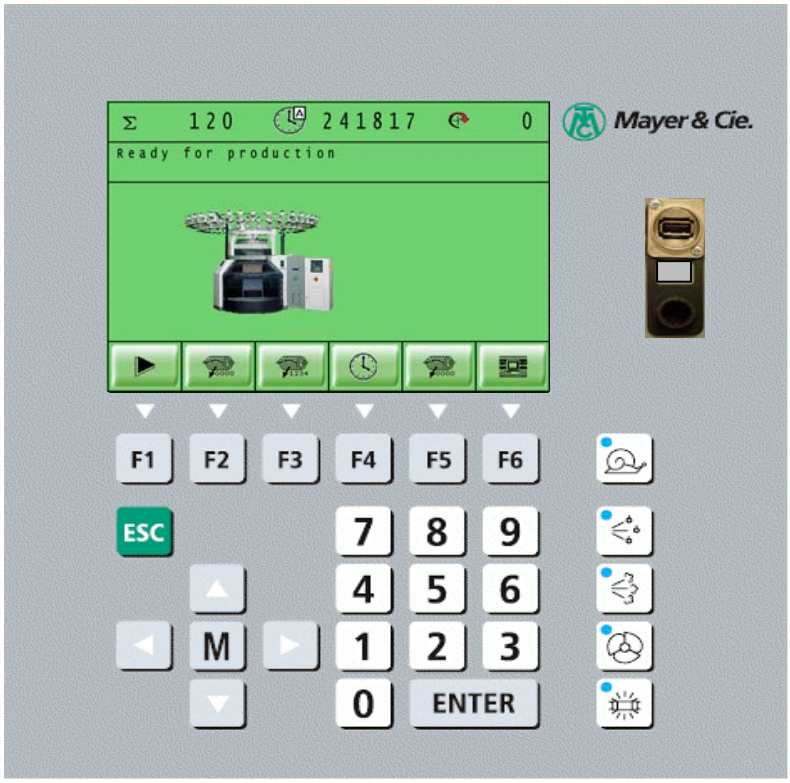
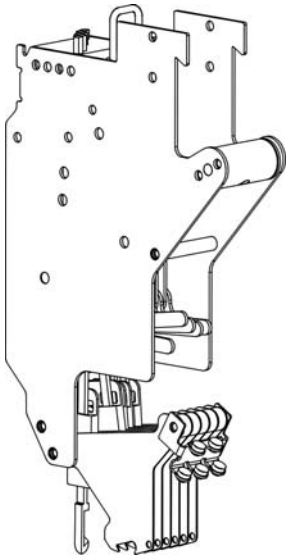
USER MANUAL

FOR

MAYER & CIE – STRIPING CONTROLLER





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Information concerning the Manual:

- This Manual is intended to explain setup, function and operation of the striping controller. While the attached pictures and drawings show the essential features of the controller and the program, they are not binding with regard to the accuracy of any dimensions or details. This document shall be subject to deviations and modifications.
- This Manual shall be made available to any person requiring it and shall be read before any intervention in the machine is carried out.
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- The spare parts catalogue shall be decisive for the ordering of spare parts. Only original Mayer parts may be used.
- Specific attention is drawn to the safety regulations and the measures to be taken in hazardous areas. Protective and safety facilities shall not be rendered inoperative.
- Any intervention or work shall be performed by experts only, taking into account the general safety and accident prevention rules.
- Machine operators shall be appropriately instructed and trained.
- This Manual forms a constituent part of the machine. In the case of a machine resale, this Manual shall be supplied to the buyer together with the machine.
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Ensure observation of and compliance with the generally safety regulations of the knitting machines!

Subject to modifications and amendments!

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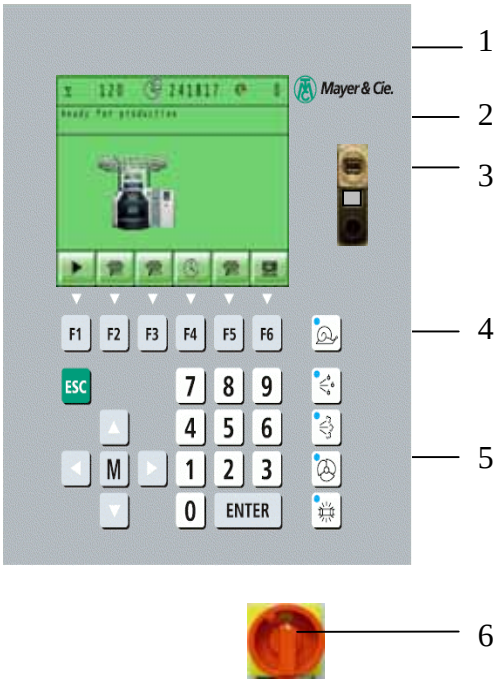
2. Overview of control panel

- The striping controller is integrated in the machine control system and forms a constituent part of the latter. It is intended for use in mechanical stripers and comprises the programs for the striping functions. The control panel, the display and the keys are identical with those of the machine control unit. For this reason, only those functions that are important for the striping controller will be described here.

2.1 Control panel



1 = Control panel
Complete unit with display, keyboard and function keys

2 = Display
Display to indicate operating states, error messages or menu texts.
Different languages can be chosen for the texts.
See the Machine Operating Manual for details.

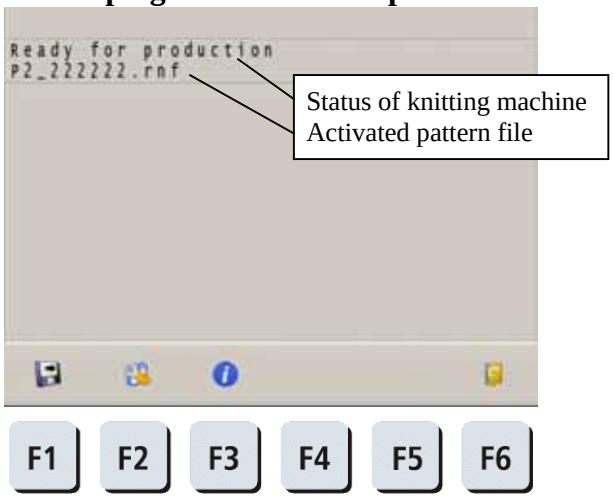
3 = USB port
Interface where data can be read in using a USB stick.

4 = Function keys
The function keys provide direct and fast access to certain menu items and operating functions.

5 = Keyboard
The keyboard is used to enter and select different operating modes and functions.

6 = Machine mains switch

2.2 Striping menu – control panel



Load files
Use the function key F1 to load the current pattern file.

Settings
Use the function key F2 to perform settings in the striping menu.

Info
Use the function key F3 to display the software version installed.

Exit
Use the function key F6 to exit the striping menu control panel.

3. Keyboard assignment

- Only the key assignments important for the striping controller will be described here.
  See the Machine Control Manual for further key assignments.

3.1 Input keys

Numerical keys:
These keys are used to select or pre-select indivudual menu items or numerical values.

ENTER key:
This key is used to accept and start a pre-selected menu item or a pre-selected numerical value.

Left/right arrow keys:
In the case of a YES/NO prompt (ON/FF prompt), these keys can be used to move from YES to NO (ON/OFF) or from NO to YES (OFF/ON). In addition, the cursor position within a line is selected with these keys.

Up/down arrow keys:
These two keys are used to switch from one menu item to the next during pre-selection. These keys may also be used to move the cursor to a position in another line.

M key:
This key is used activate or de-activate functions. In addition, input fields can be selected with this key.

ESC key
This key is used to go back in menu

3.2 Function keys

The function keys offer direct and fast access to certain menu items and operating functions.

3.3 Formula input keys

P key: Is entered with the function key F1. This function can be used to combine several pattern files into one file.
Example P5 = P1 + P3

FINGER key:
The function key F2 is used to select the finger (colour). After pressing this key, it is necessary to enter the finger number of the striper using the numerical keys.
Example C4

OPEN/CLOSE BRACKET key:
Is entered with the function keys F3/F4.
Is used to create brackets for formulas.
When a bracket is formed, a multiplication sign is automatically generated in connection with a number before or after the bracket.
Example: 12*(C1+C2)

ADDITION key:
Is entered with the function key F5.
Is used for the addition of rows.
Example: 20 C1 + 30 C2

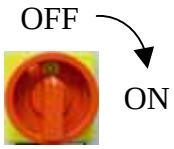
DELETE key:
Is entered with the function key F6.
Is used to delete individual inputs.

3.4 Input symbol

Hand symbol:
In this Manual, this is used as selection symbol to show that the appropriate keys or functions have to be pressed.

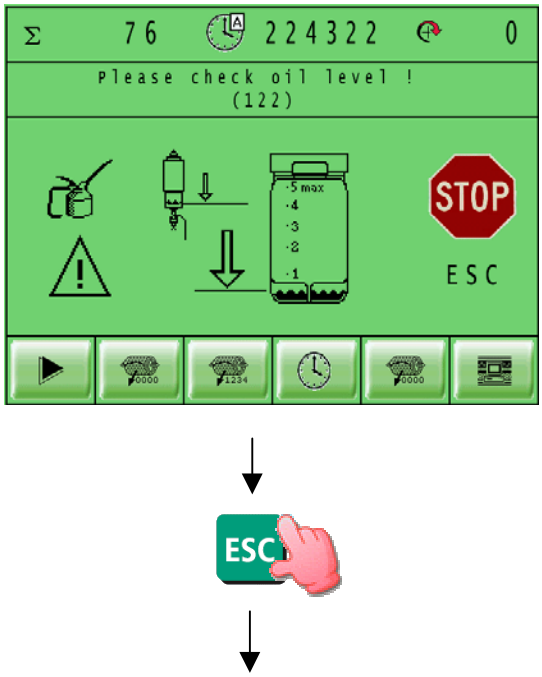
4. Turn on the controller

4.1 Turn on mains switch

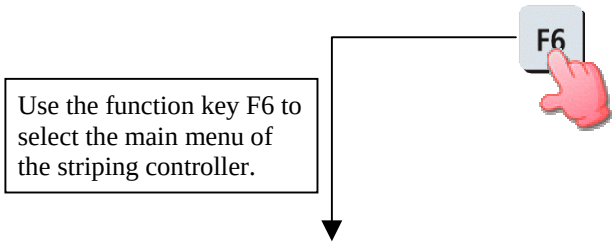


4.2 Check oil level

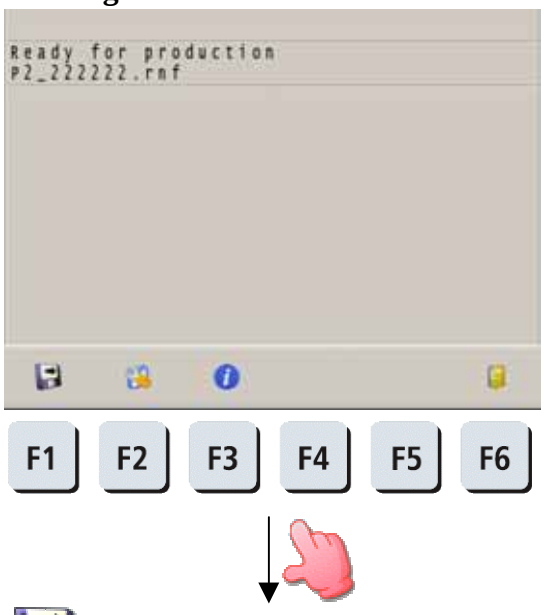
- This message will appear after the power supply has been switched on. It means that the oil level in the oiler and the waste oil tank has to be checked.
- In the machine control, this message can be selected with YES or NO under the menu item “Check oil level“.



4.3 Machine control main menu



4.4 Ringel control menu



Load files [F1]: Chapter 5

Settings [F2]: Chapter 6

Info [F3]: Chapter 7

Exit [F4]: Back to the main machine control menu

5. Activate pattern files

5.1 File formates
5.2 Activate pattern files
5.2.1 Formula memory
5.2.2 Network
5.2.3 USB port
5.2.4 Further directories

5.1 File formates

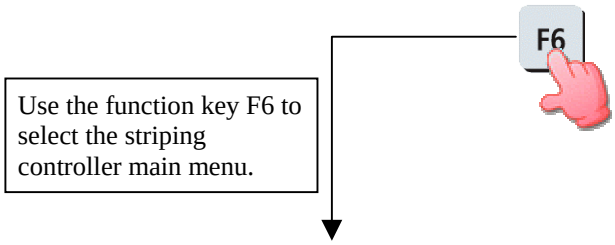
The following file formats are supported:

File type	Content
.m c t	- Pattern files - Software Updates EMS - MADA
.r n m .r n f .r n g .r n 2 .r n 6	- Striping data
.gz	- Software Update Control panel eCP (from version 1.4)

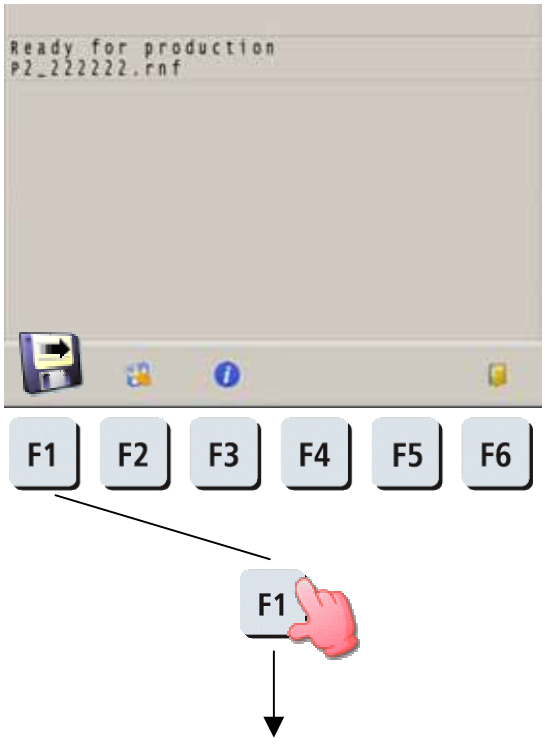
Only known file formats can be loaded.

5.2 Activate pattern files

a) Main menue



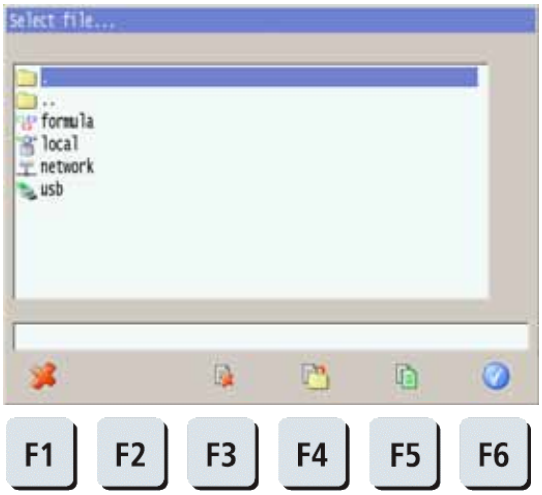
b) Striping controller menu



c) Directory selection

Pattern files can be chosen from the following directories.

- Formula (formula memory)
- Network (network)
- Usbstick (USB port)



Selection key
Use the selection key F6 or the Enter key to select a directory or a file.

Cancel key
Press the cancel key F1 to cancel your selection.

Delete Key
Press the delete key F3 to delete a directory or a sample file.

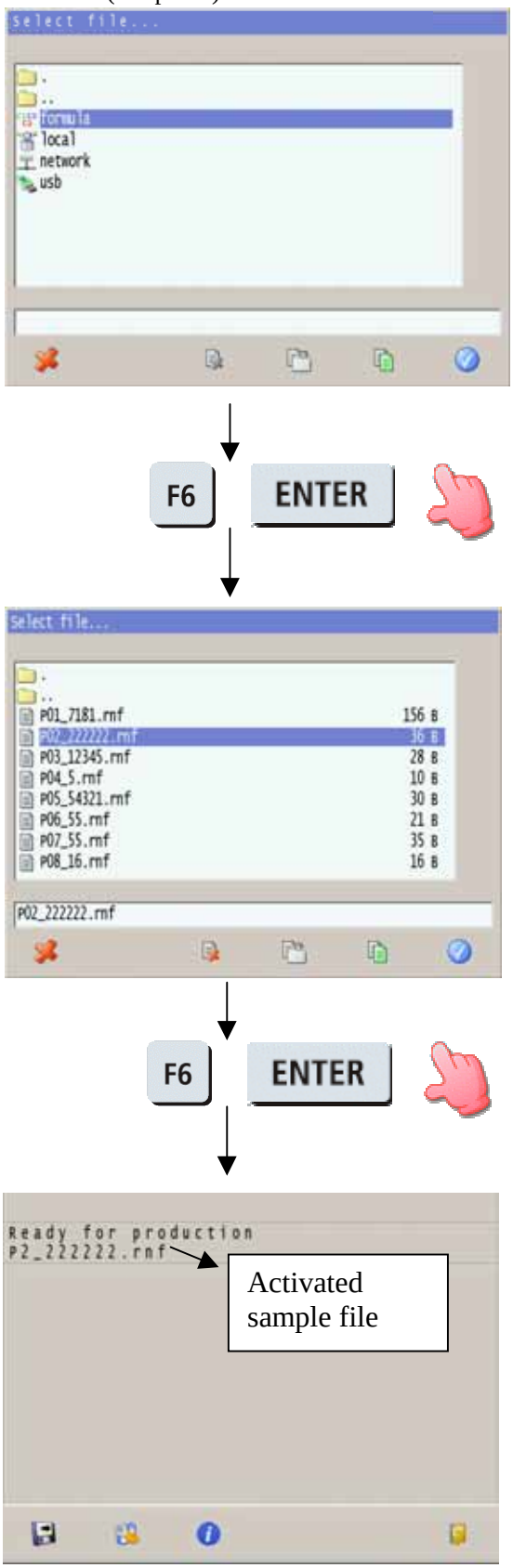
Insert Key
Press the insert key F4 to insert a directory or a sample file.

Copy Key
Press the copy key F5 to copy a directory or a sample file.

Up/down arrows
Use the UP arrow and DOWN arrow keys to select the directory or the file.

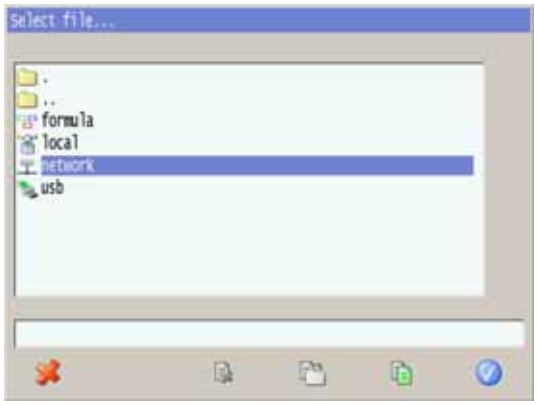
5.2.1 Selection from formula memory

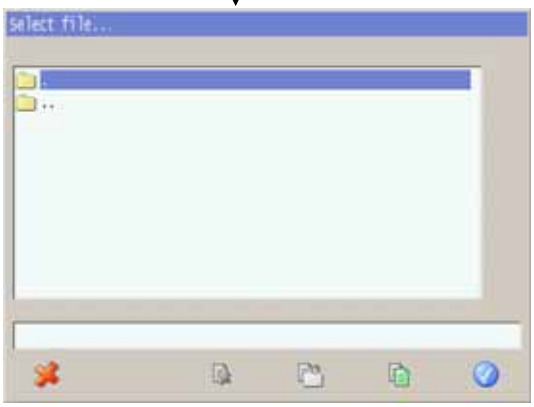
- Here a pattern file generated with the formula editor (Chapter 6) can be activated.



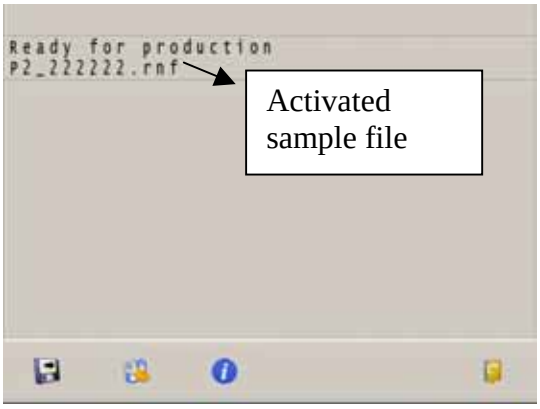
5.2.2 Selection from network

- Pattern files can be activated from internal or external networks.
- Network activation depends on the respective plant operator.





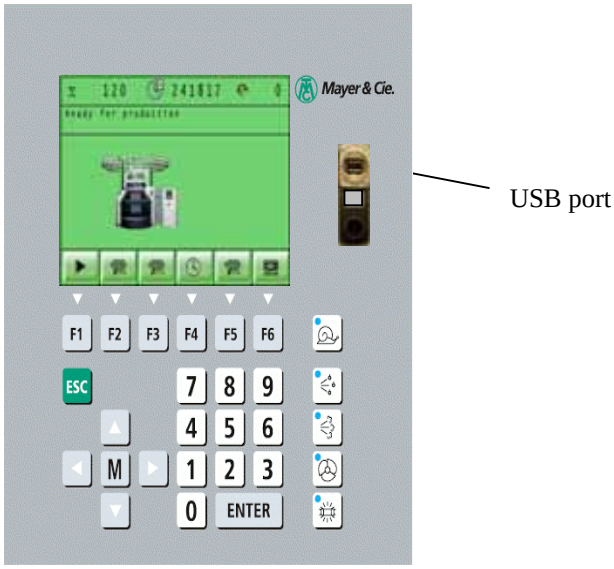
Select pattern file from directory and activate with F6 or ENTER.

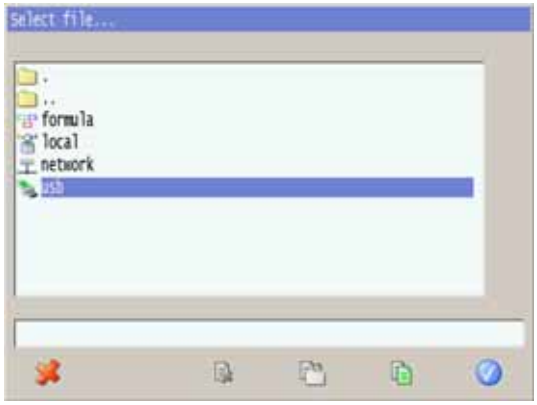


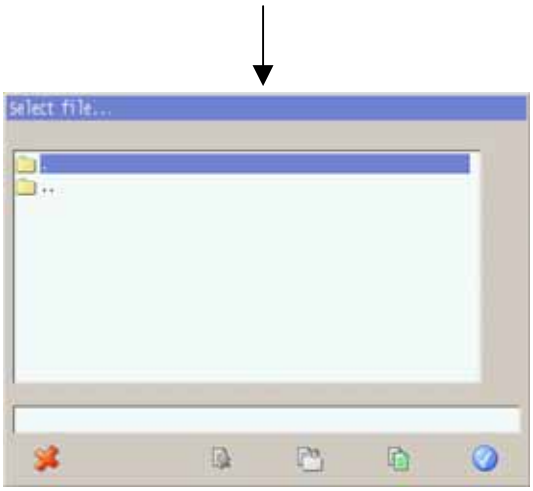
5.2.3 Selection via USB port

- The pattern file is activated via a USB stick or another compatible application.

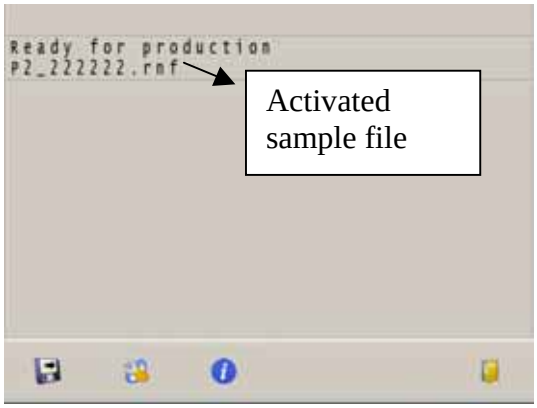
USB port:







Select pattern file from directory and activate with F6 or ENTER.

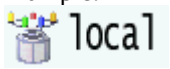


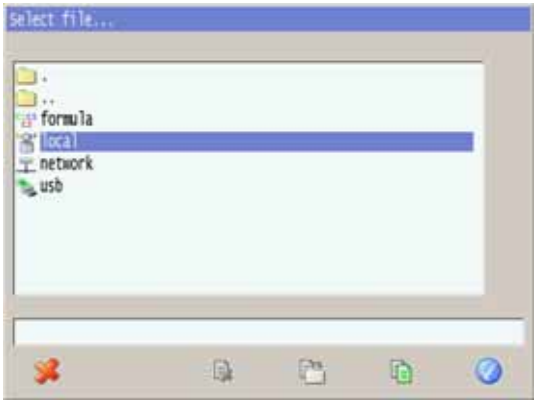
Activated sample file

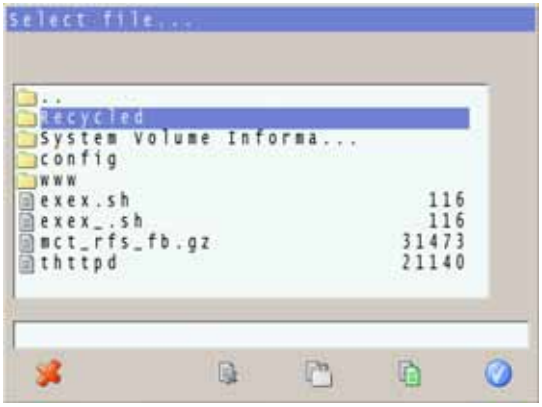
5.2.4 Other directories

- Further and general data relating to the knitting section can be viewed and stored here, e.g. configuration data. These are not relevant for the loading of pattern files.

Example:







Select file from directory and activate with F6 or ENTER.
Press F1 to return to the striping or main menu.

6. Settings

- This menu item can be used to activate or de-activate certain functions. Furthermore, pattern files may be entered here.

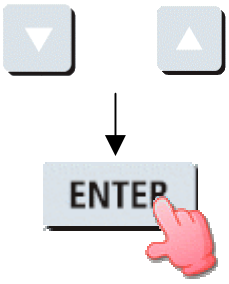
a) Activate striping controller:

b) Activate the "Settings" menu

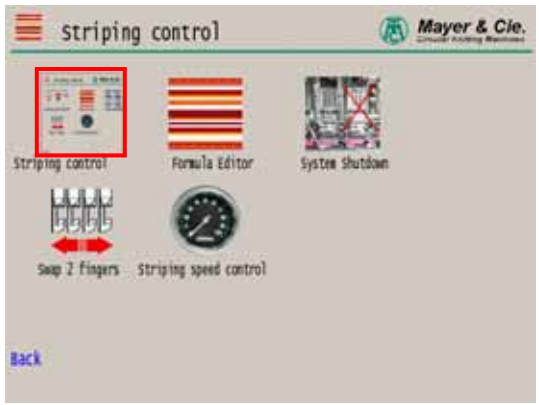
c) Activate selection menu

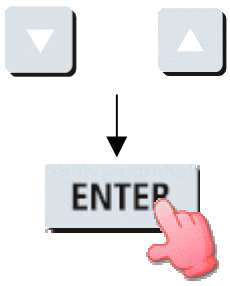
- Menu items highlighted in red can be activated.

Select menu item with



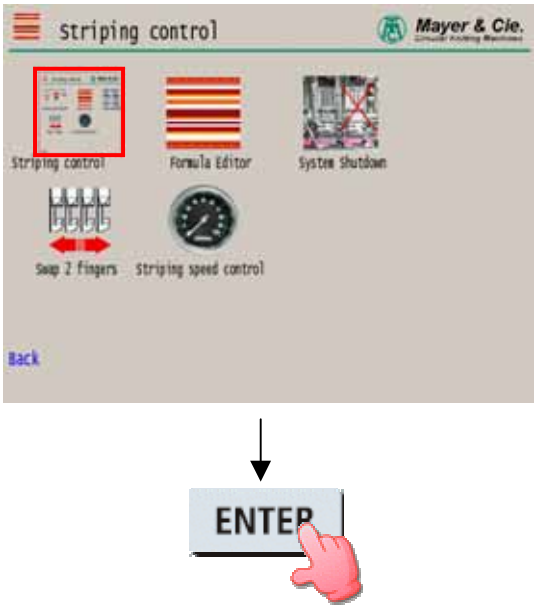
d) Choose striping settings



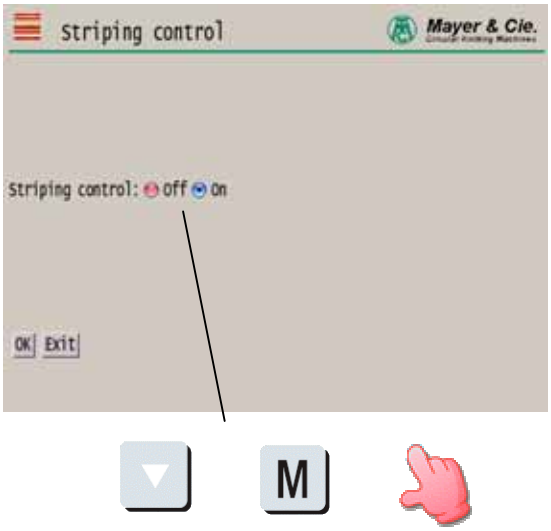


6.1 Complete striping control

6.1.1 Copmplete striping control on/off



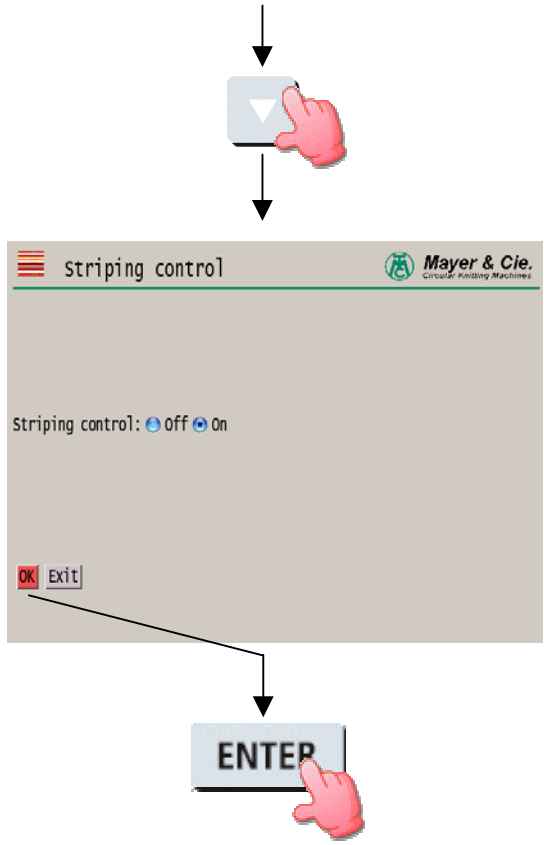
a) Complete striping control on



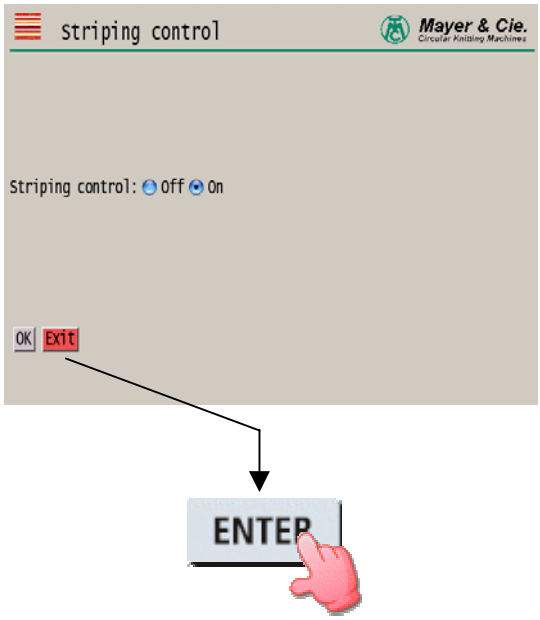
b) Complete striping control off

= Activation indicator

c) Accept selection with “OK“



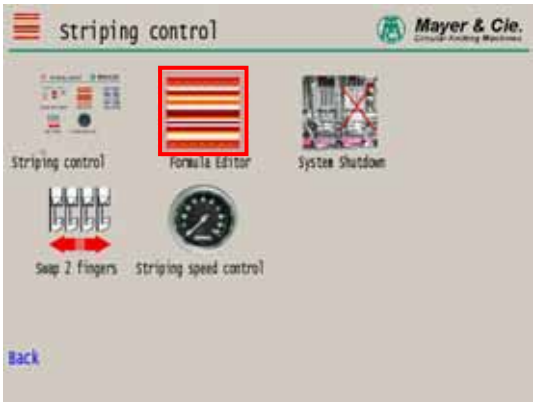
d) Cancel selection

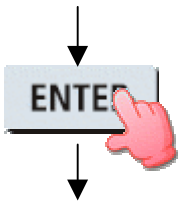


6.2 Formula editor

6.2.1 Modification of the existing pattern

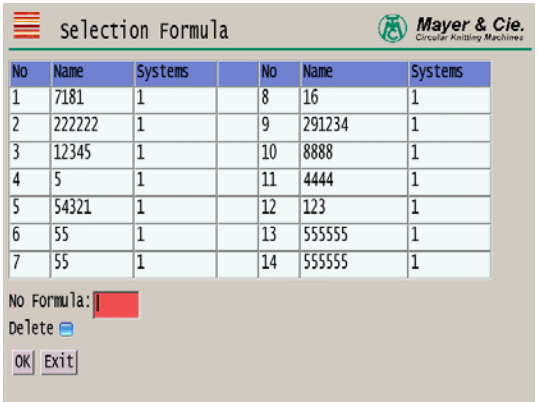
a) Select formula editor





b) Select program

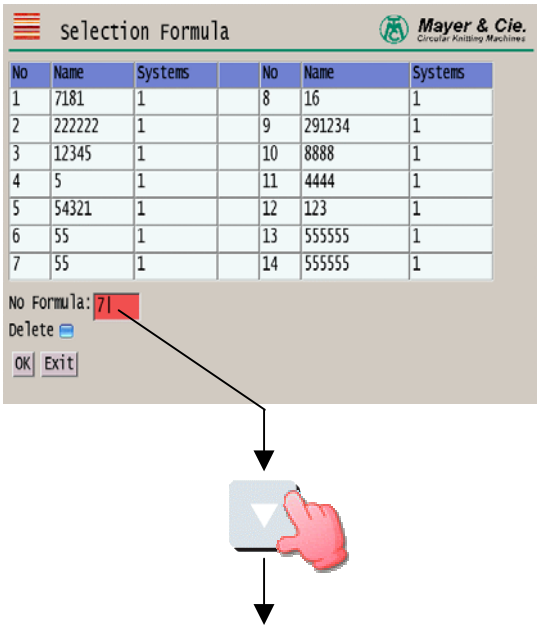
Example:



Enter: **1 – 14 Change existing pattern**

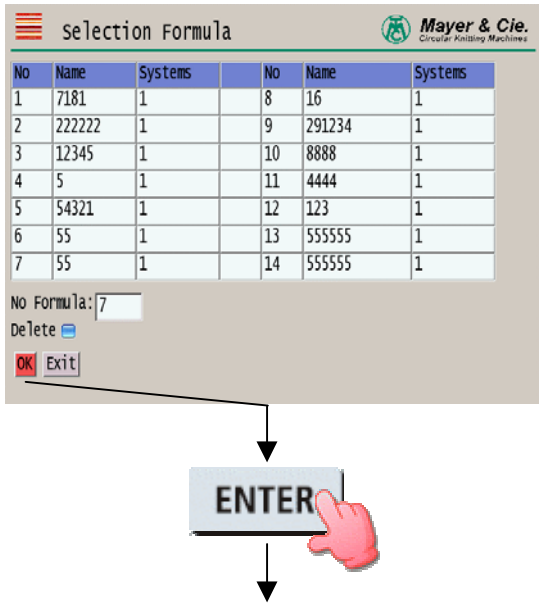
c) Select formula no.

Example: Enter “1“



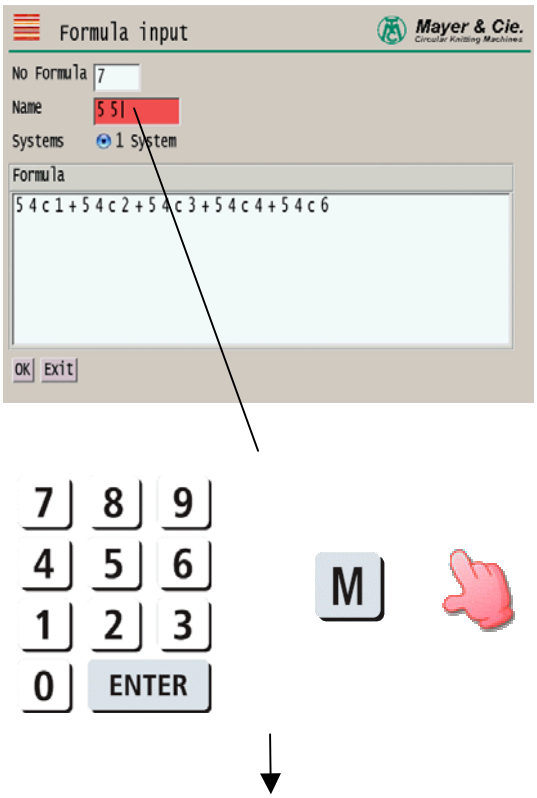
d) Press “OK“ to accept formula no.

Exit = cancel process

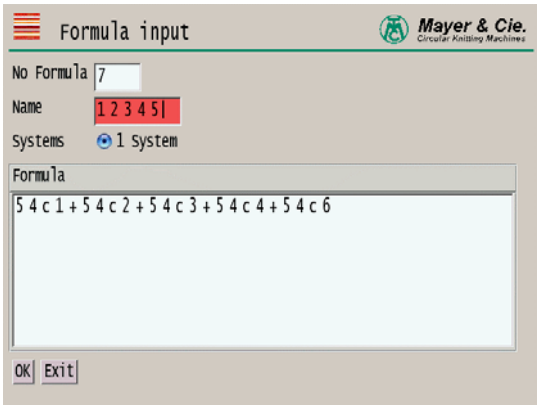


e) Change formula "Name"

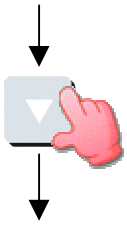
- Enter the name as a combination of numbers via the keyboard.



Example "12345"

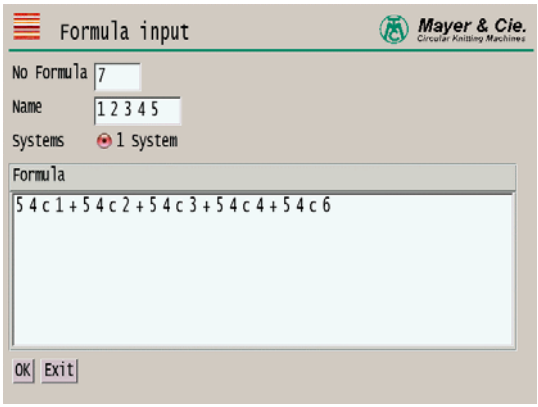


If no further modifications are required, confirm the input with "OK" or "ENTER".



f) Choose between 1 or 2 feeders (systems)

- This funktion is depending from machine typ
- This function can be used to choose if the striping pattern will be knitted with
  1 striper per feeder (1 feeder) or
  2 stripers per feeder (2 feeders).



= Selection 1 or 2 feeders

= Selection 1 or 2 feeders

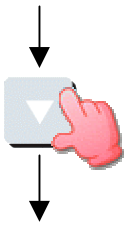
= Activation indicator

If 2-feeders are selected, the following designations apply for the finger selection of the stripers:

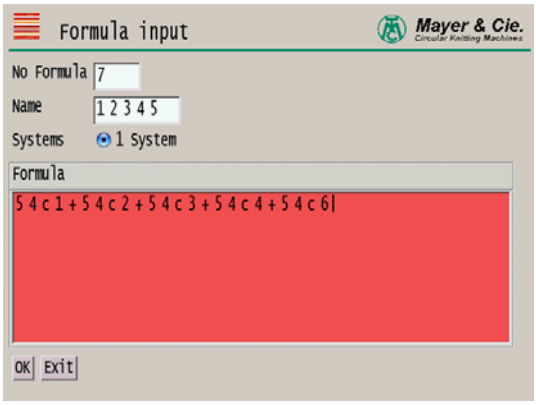
4-finger striper: Feeder A C1 to C3
Feeder B C4 to C6

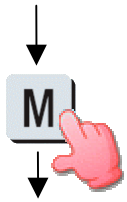
5-finger striper: Feeder A C1 to C5
Feeder B C6 to C10

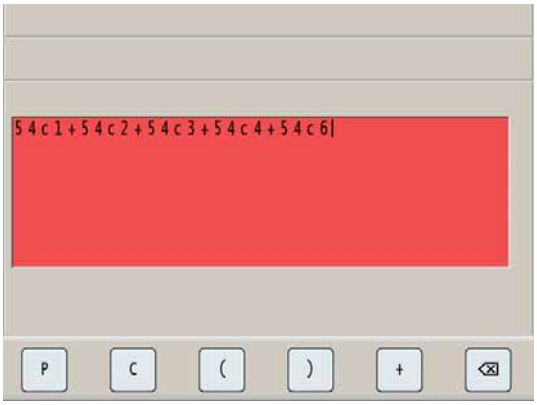
6-finger striper: Feeder A C1 to C6
Feeder B C7 to C12



g) Changing the formula





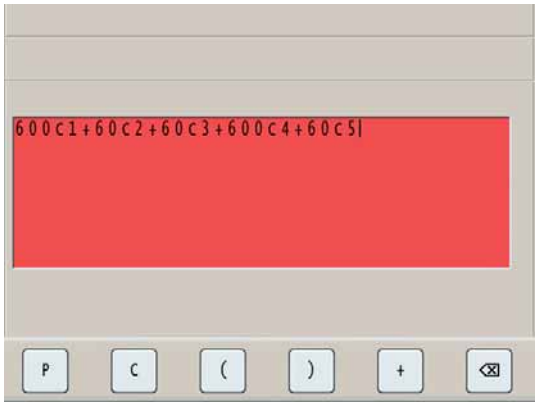


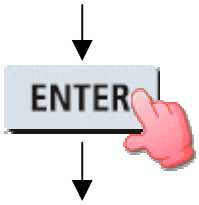
- Enter via the F keys or the numerical keypad.

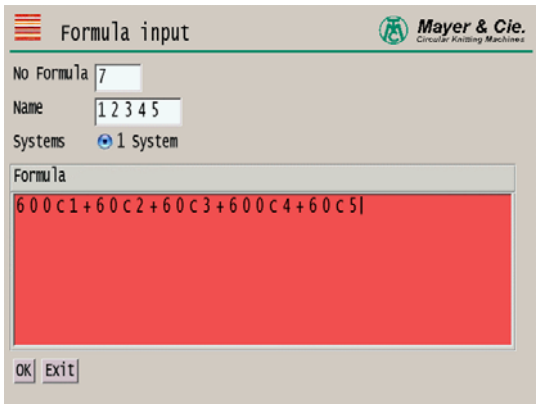
= Cursor

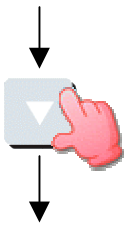
= Delete key

Example:

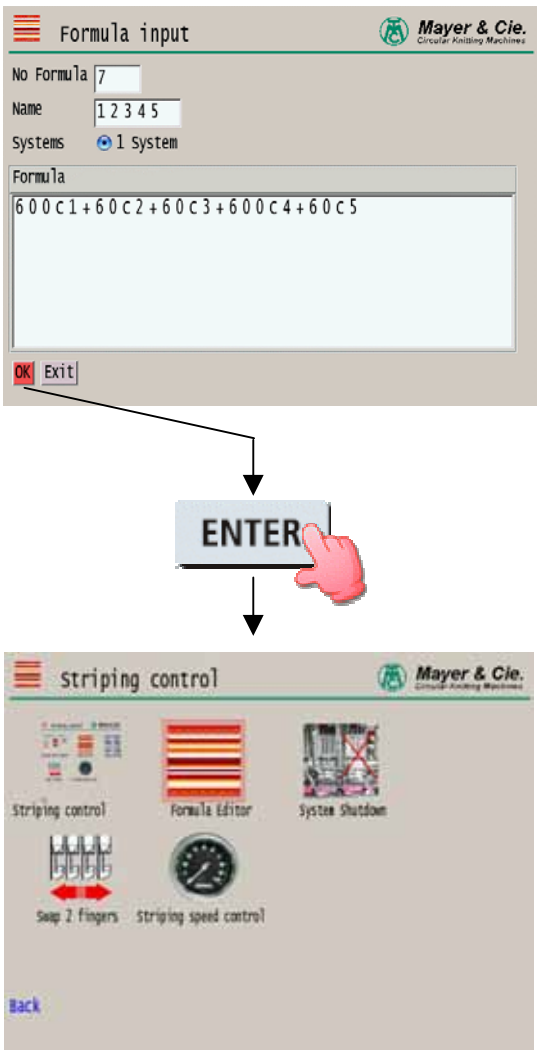






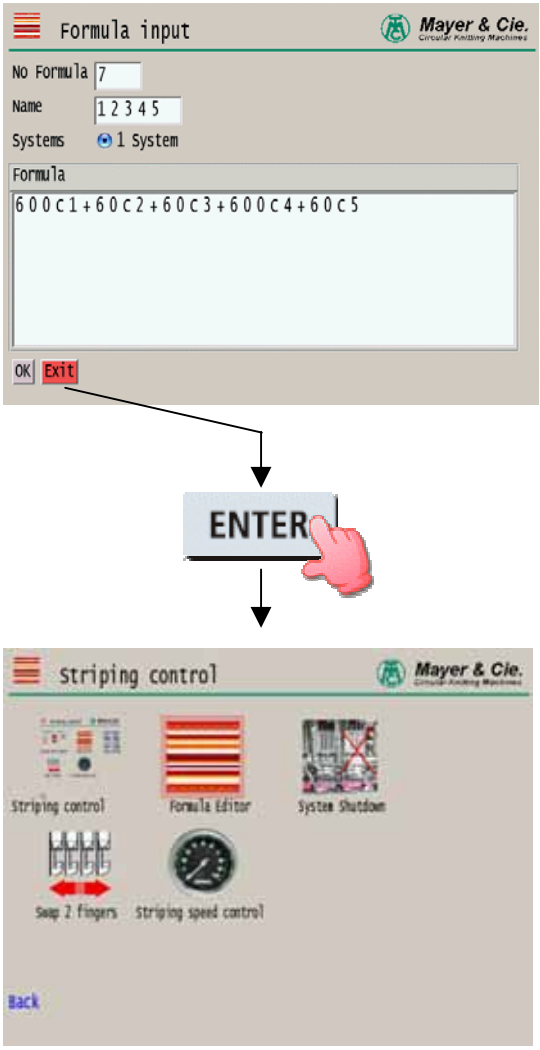


h) Accept change



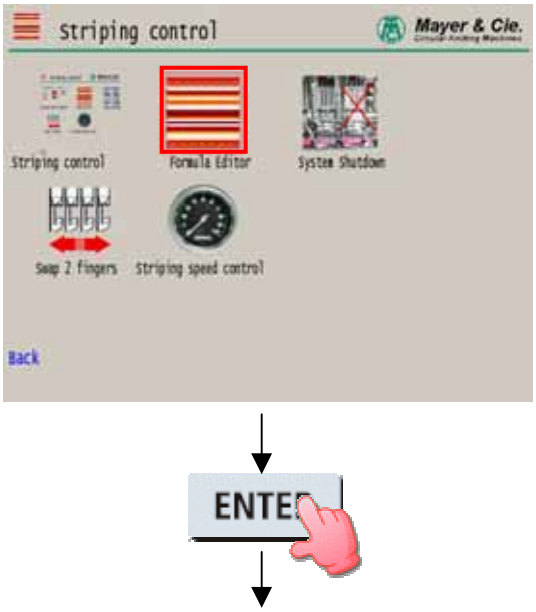
See Chapter 5 for activation of the pattern file

i) Cancel change



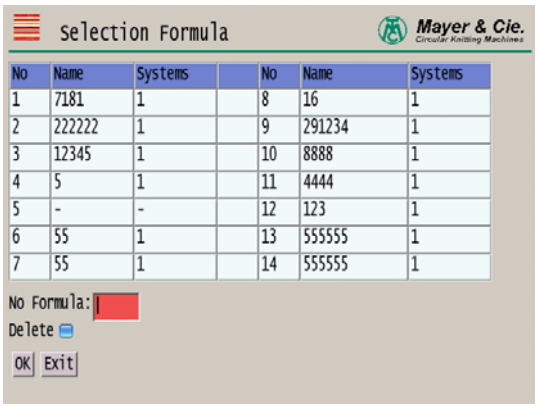
6.2.2 Enter new pattern

a) Select formular editor



b) Select program

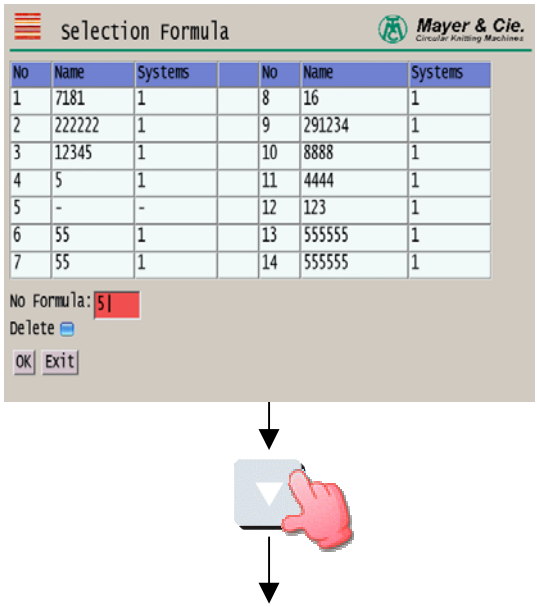
Example:



Enter: 1 – 4 Change the existing pattern
6 – 14 Change the existing pattern
5 Enter new pattern

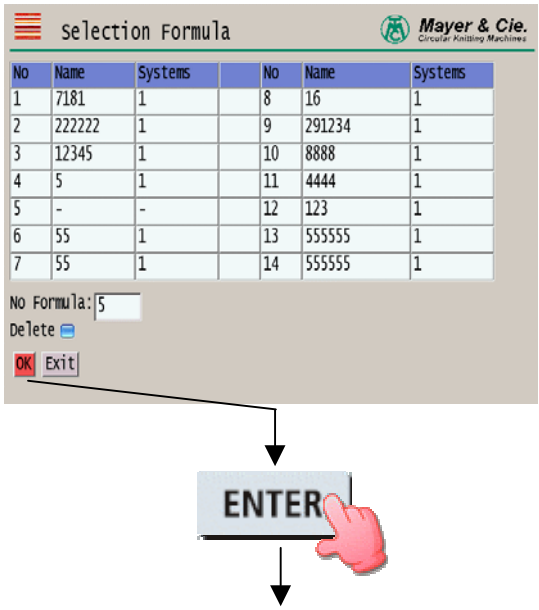
c) Select formula no.

Example: Enter “5“



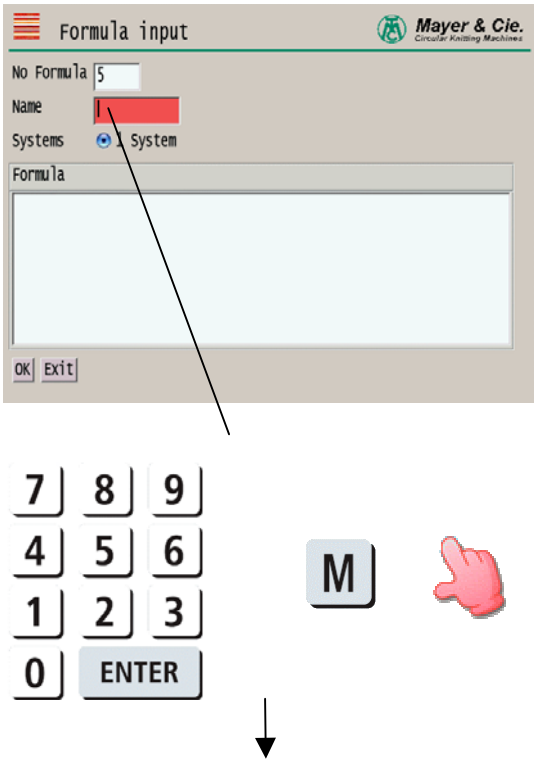
d) Press “OK“ to confirm formula number

Exit = Cancel

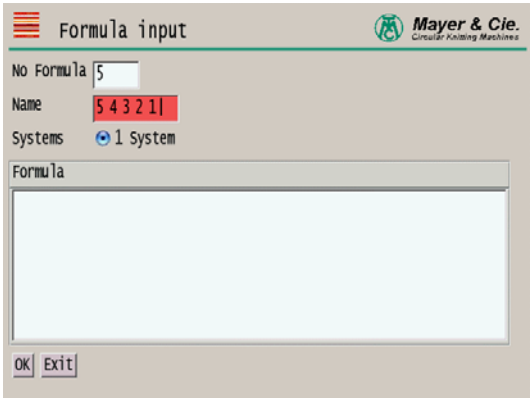


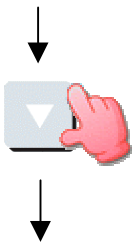
e) Enter formula “Name“

- Enter the name as a combination of numbers via the keyboard.



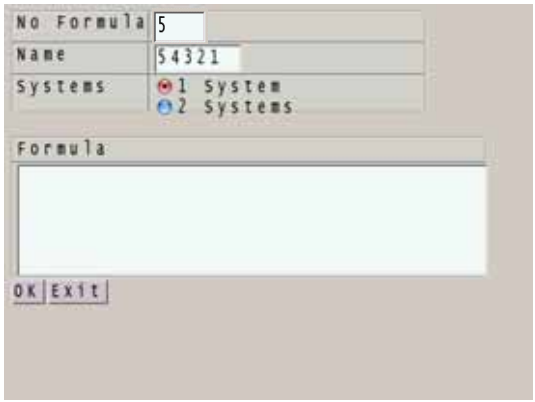
Example “54321“





f) Choose between 1 or 2 feeders

- This funktion is depending from machine typ
- This function can be used if the striping pattern will be knitted with
  1 striper per feeder (1 feeder) or
  2 striper per feeder (2 feeders).



= Selection 1 or 2 feeders

= Selection 1 or 2 feeders

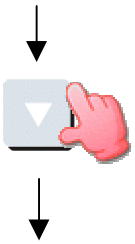
= Activation indicator

If 2 feeders are selected, the following designations will apply to the finger selection of the stripers:

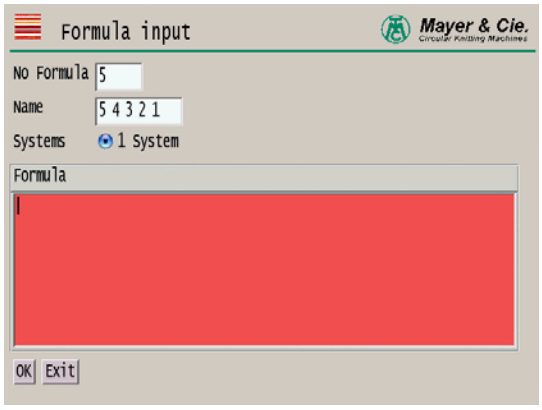
4-finger striper: Feeder A C1 to C3
Feeder B C4 to C6

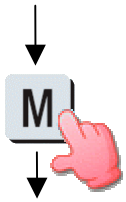
5-finger striper: Feeder A C1 to C5
Feeder B C6 to C10

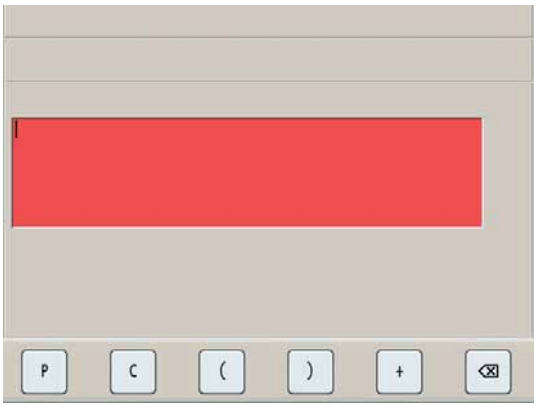
6-finger striper: Feeder A C1 to C6
Feeder B C7 to C12



g) Enter the formula





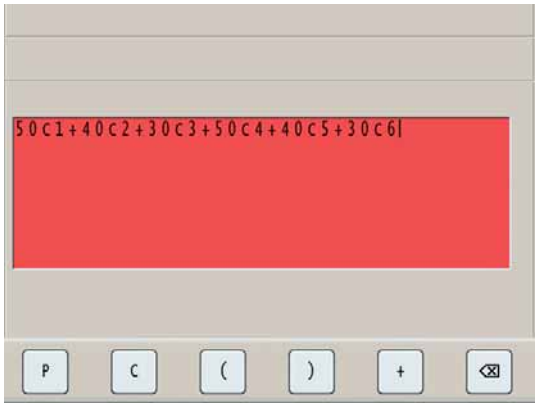


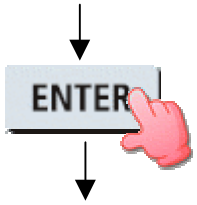
- Enter the formula via the F keys and the numerical keypad.

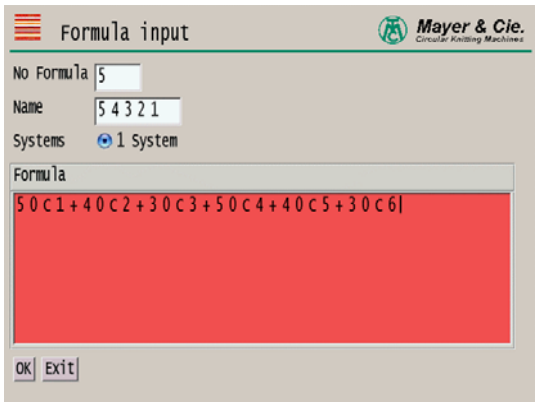
= Cursor

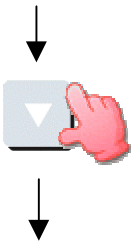
= Delete key

Example:

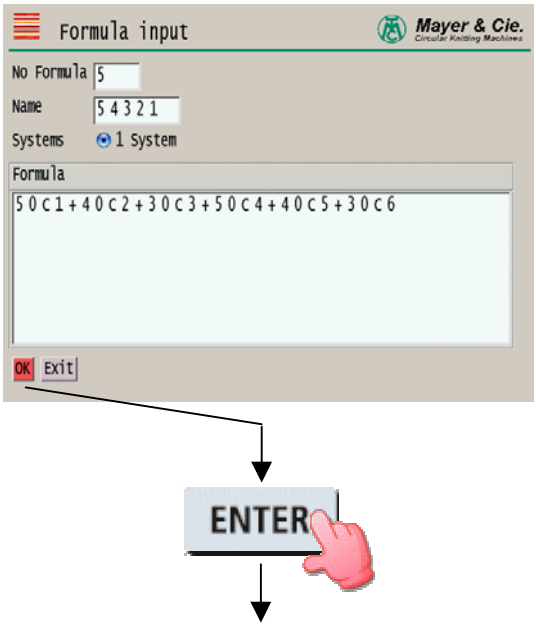




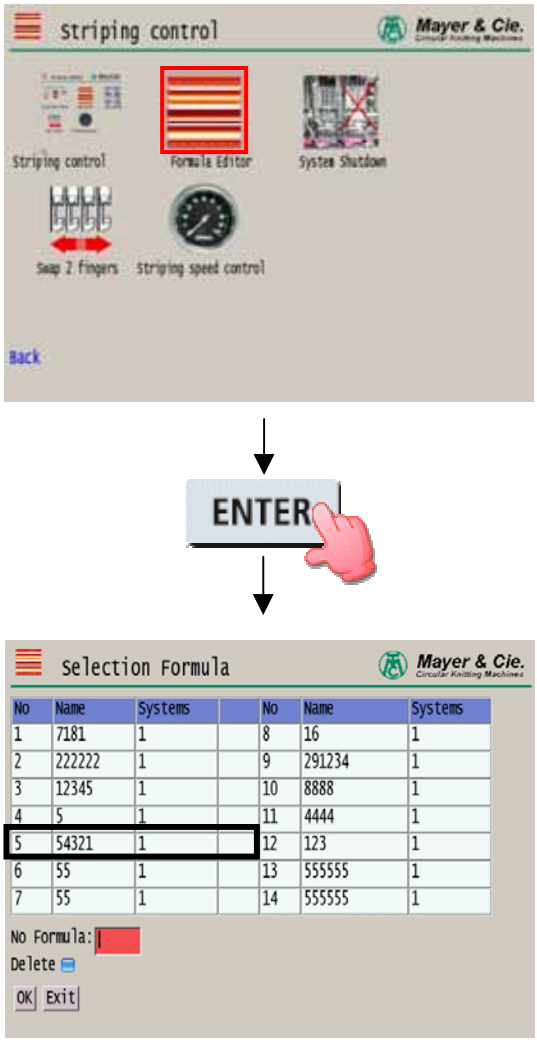




h) Accept input

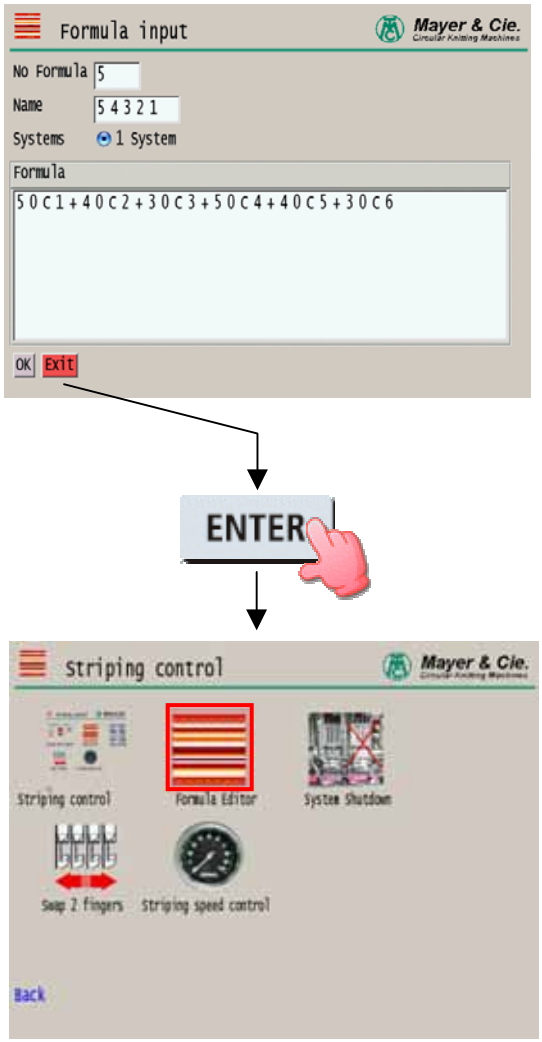


i) Check input



k) Cancel input

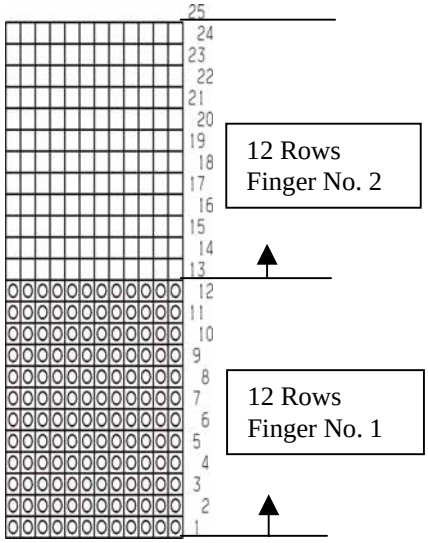
- Press “Exit“ to cancel input



6.2.3 Example of formula input

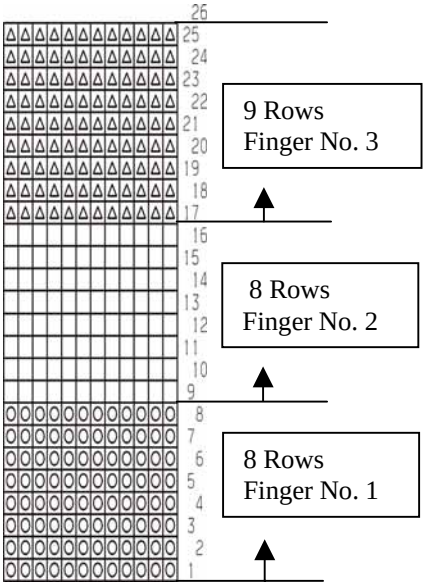
a) Example 1

Enter formula:
12C1+12C2



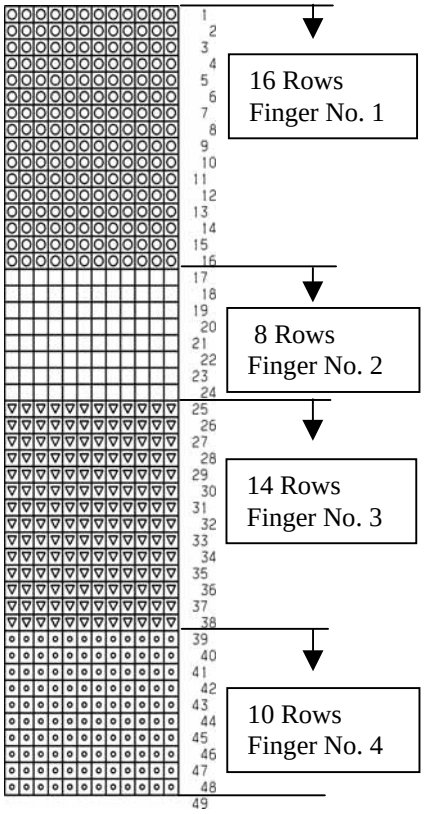
b) Example 2

Enter formula:
8C1+8C2+9C3



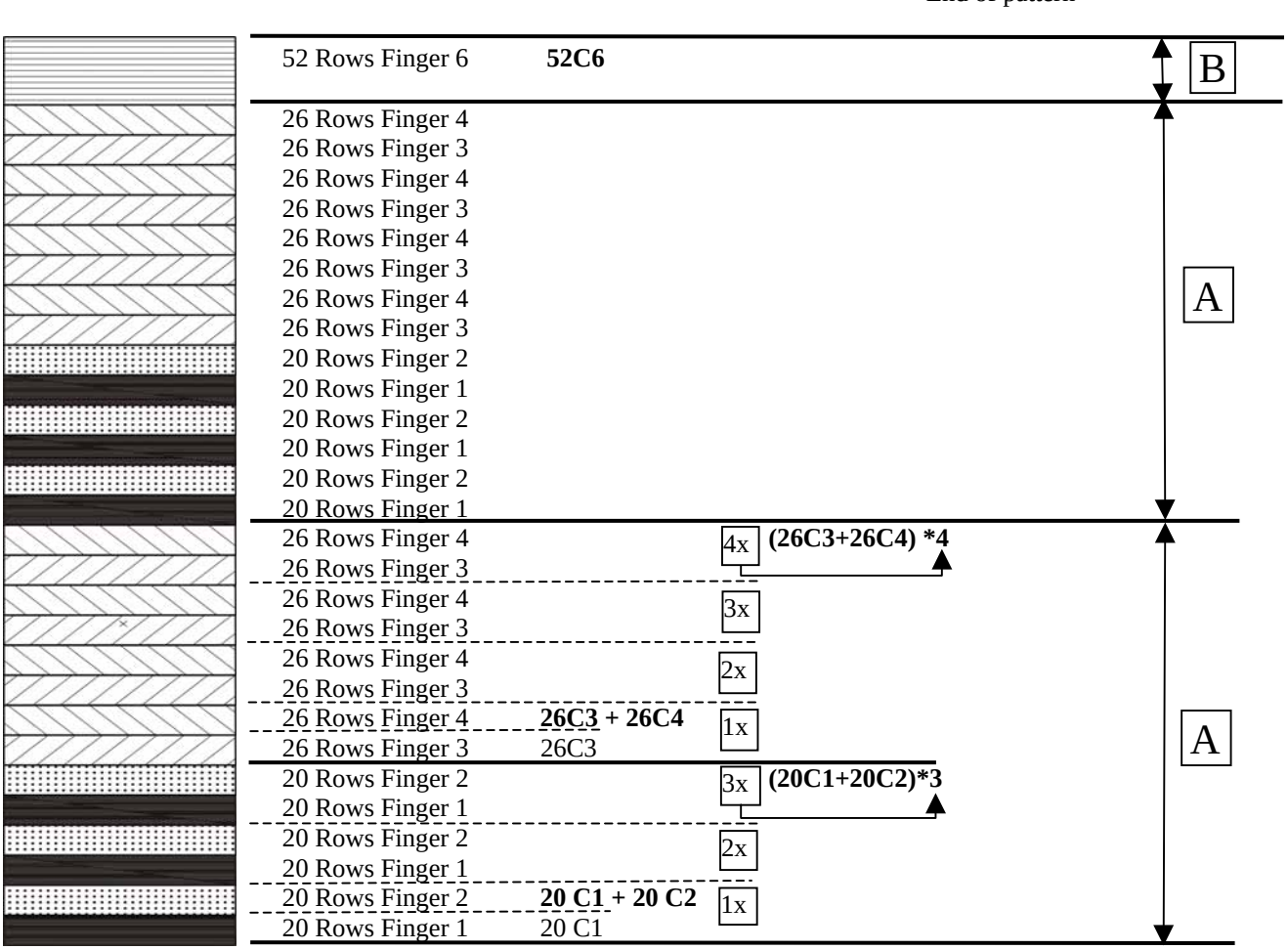
c) Example 3

Enter formula:
10C1+14C2+8C3+16C4



d) Example 4

The following pattern is to be created:



A = (20C1+20C2)*3 + (26C3+26C4)*4

A + A = 2* A = 2*((20C1+20C2)*3 + (26C3+26C4)*4)

A + A + B = 2*((20C1+20C2)*3 + (26C3+26C4)*4) + 52C6

1st option

Formula P12 : XYZ

2*((20c1+20c2)*3+(26c3+26c4)*4)+52c6

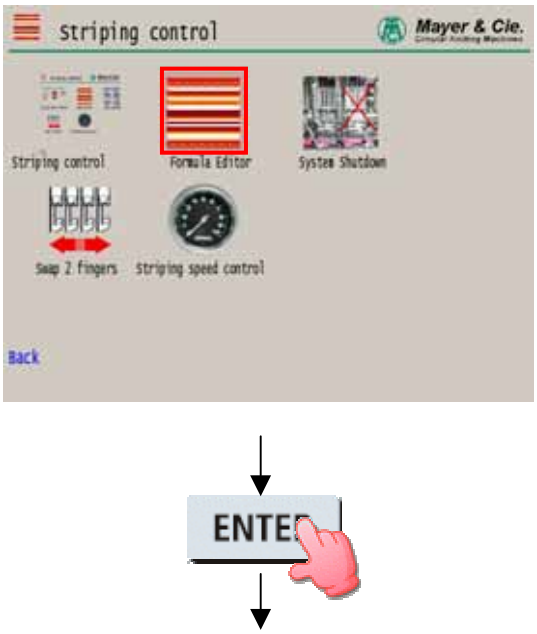
2nd option through formula rearrangement

Formula P12 : XYZ

2*(3*(20c1+20c2)+4*(26c3+26c4))+52c6

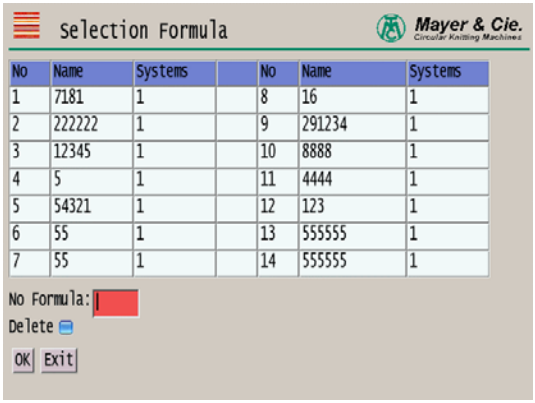
6.2.4 Delete pattern file

a) Select formula editor



b) Select pattern file

Example:

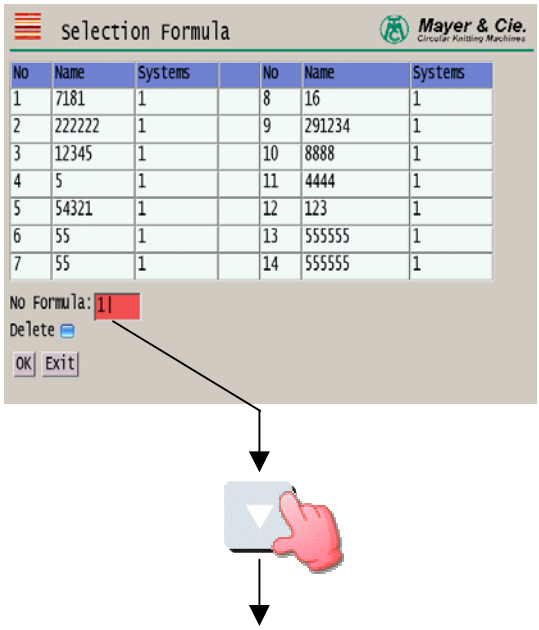


No	Name	Systems		No	Name	Systems
1	7181	1		8	16	1
2	222222	1		9	291234	1
3	12345	1		10	8888	1
4	5	1		11	4444	1
5	54321	1		12	123	1
6	55	1		13	555555	1
7	55	1		14	555555	1

Input: 1 – 14 select pattern file

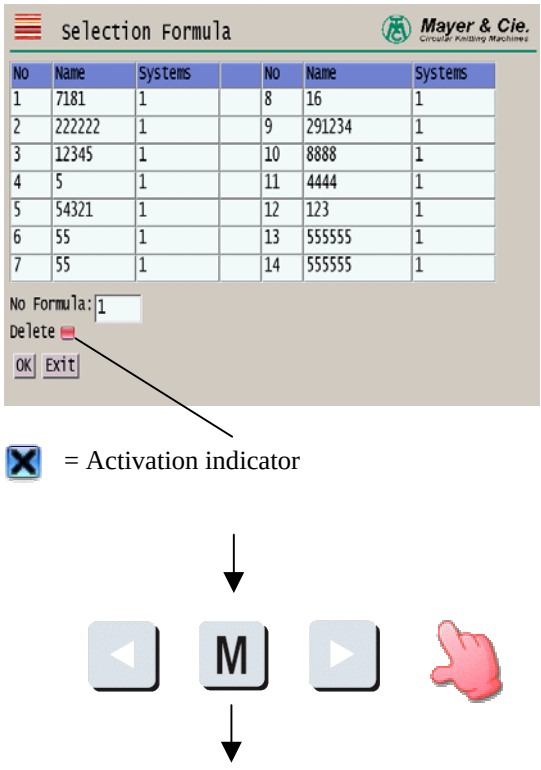
c) Select formula no.

Example: Formula no. 1 will be deleted.
Input “1“



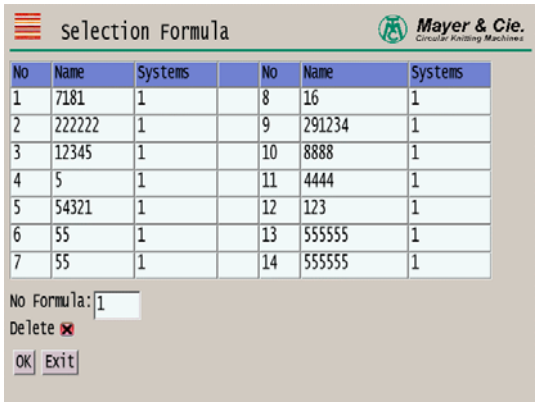
No	Name	Systems		No	Name	Systems
1	7181	1		8	16	1
2	222222	1		9	291234	1
3	12345	1		10	8888	1
4	5	1		11	4444	1
5	54321	1		12	123	1
6	55	1		13	555555	1
7	55	1		14	555555	1

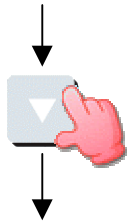
d) Activate “Delete“

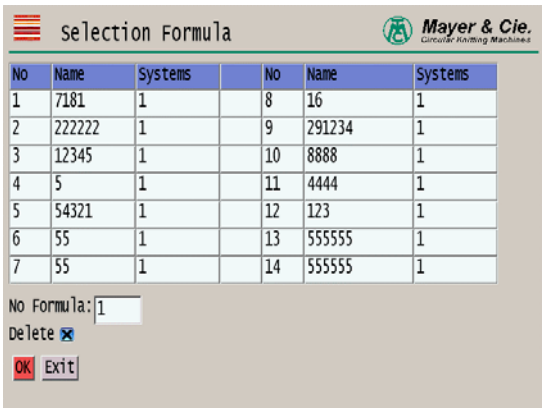


No	Name	Systems		No	Name	Systems
1	7181	1		8	16	1
2	222222	1		9	291234	1
3	12345	1		10	8888	1
4	5	1		11	4444	1
5	54321	1		12	123	1
6	55	1		13	555555	1
7	55	1		14	555555	1

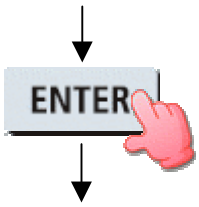
e) Accept “Delete“ with “OK“

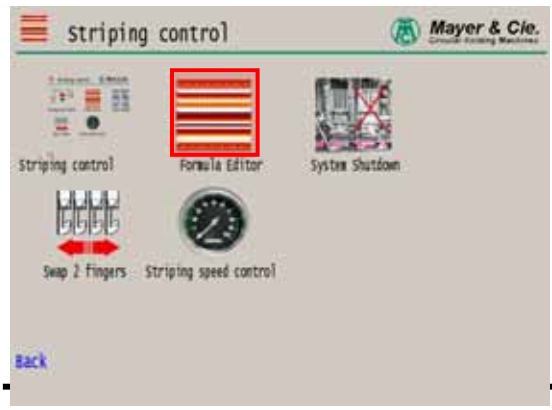






- Press “Exit“ to cancel input





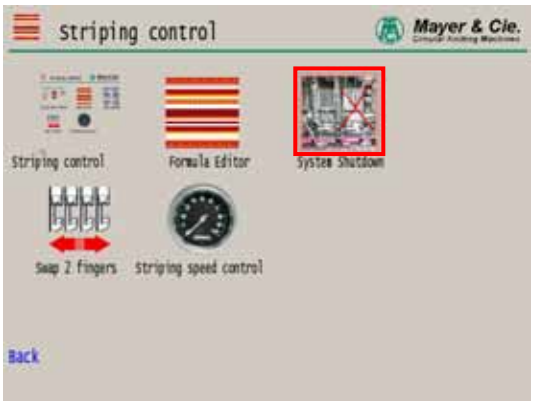
6.3 Feeder shutdown – individual stripers ON/OFF

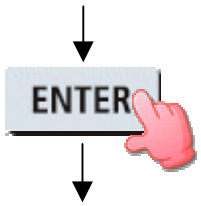
- This menu item can be used to select and turn on or shut down individual stripers.

a) Complete striping controller ON

- The complete striping controller must be activated. (see chapter 6.1)

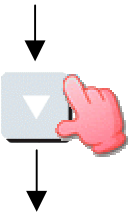
b) Activate “feeder shutdown”

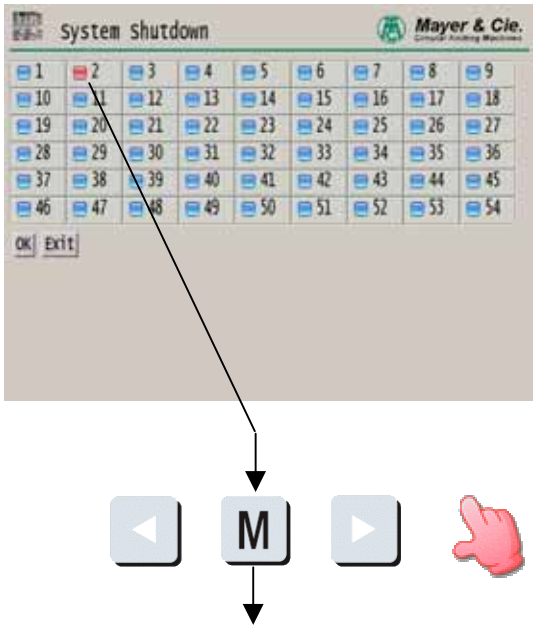


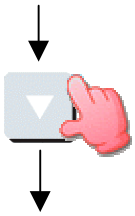


b) Select striper no.

Example: striper no. 2





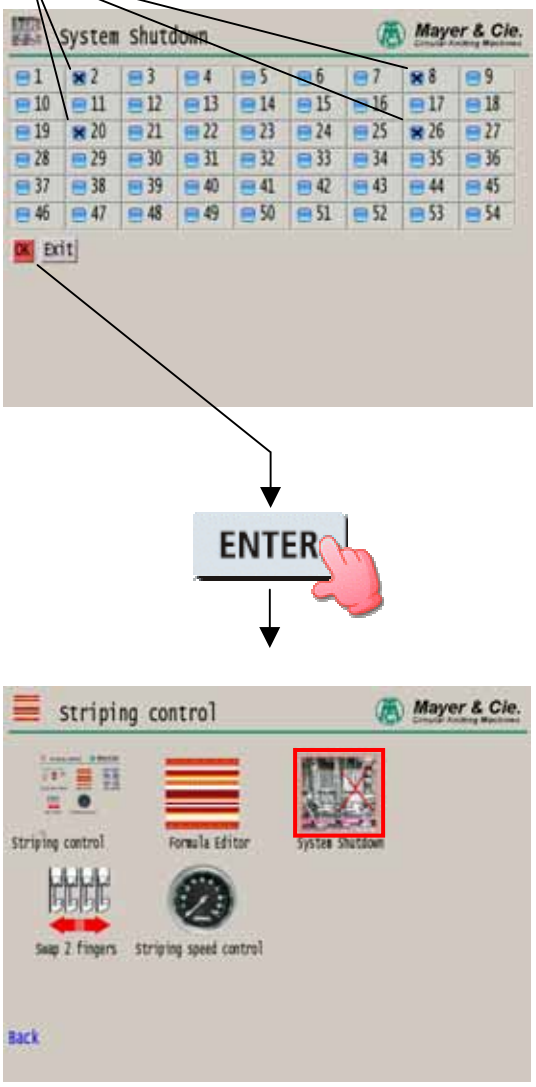


Repeat process as required

d) Press “OK“ to confirm “OFF“ of the individual stripers and save.

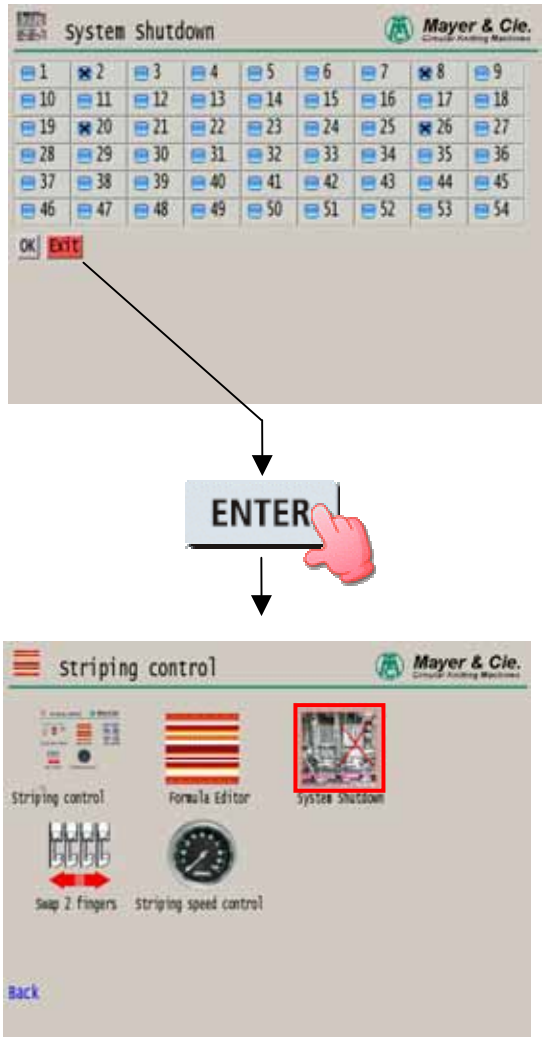
Example: stripers no. 2, 8, 20, 26
are turned off.

= Stripers OFF



d) Cancel input

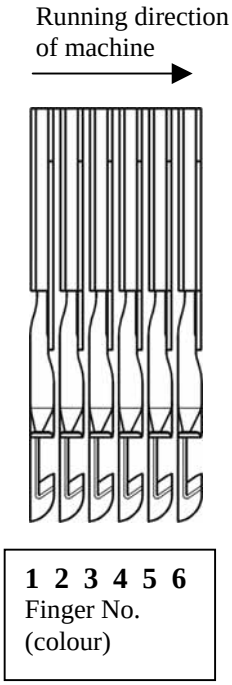
- Press “Exit“ to cancel input.



6.4 Swap 2 fingers

- This menu item can be used to exchange 2 fingers (colours) on the striper quickly and without much effort.
- The input of fingers depends on the type of striper and the running direction of the knitting machine.

Example:
6-finger striper
clockwise

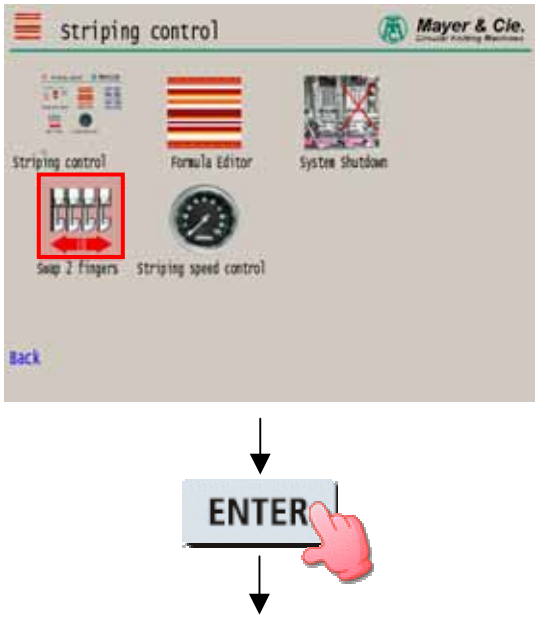


1 2 3 4 5 6
Finger No.
(colour)

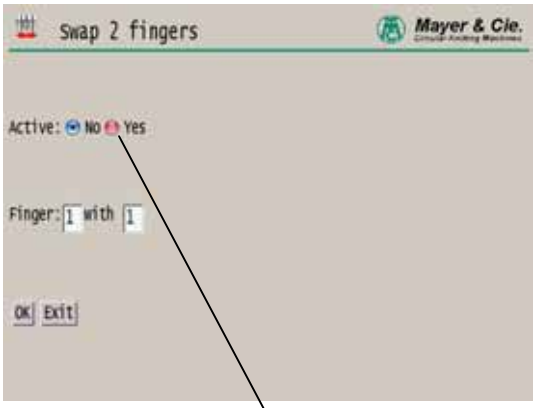
- **The following example demonstrates how finger 2 and finger 4 are exchanged**

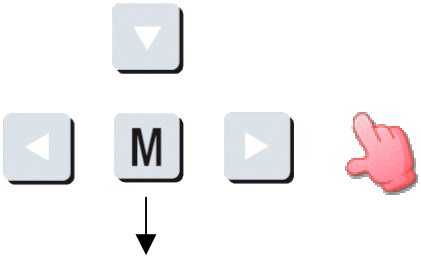
When another pattern file is activated, the function “Swap 2 fingers” remains active!

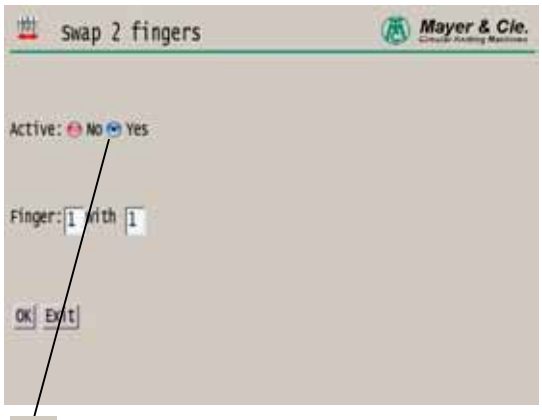
a) Select “Swap 2 fingers“



b) Activate “Swap 2 fingers

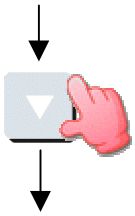




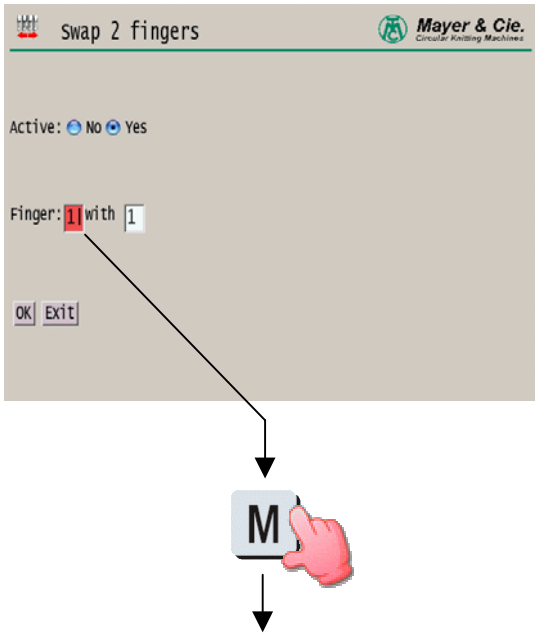


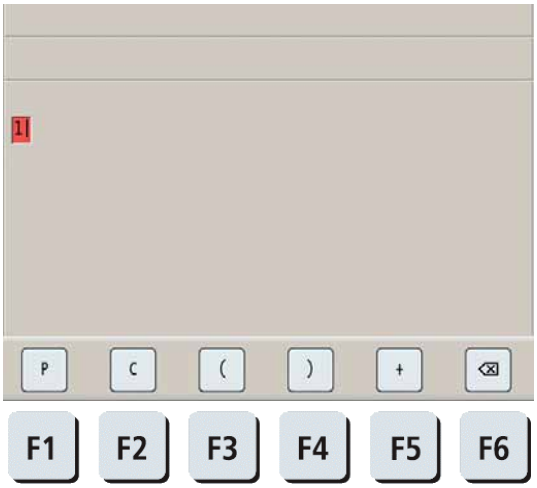
= Swap 2 fingers activated

= not activated



c) Enter the first finger to be swaped

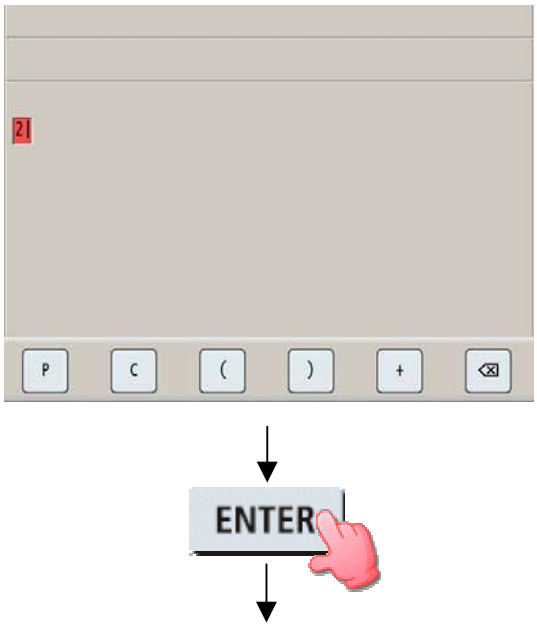


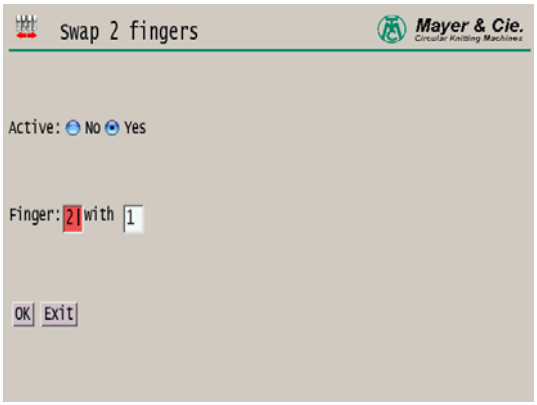


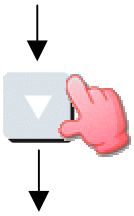
- Enter the values via the F keys and the numerical keypad

= Delete key

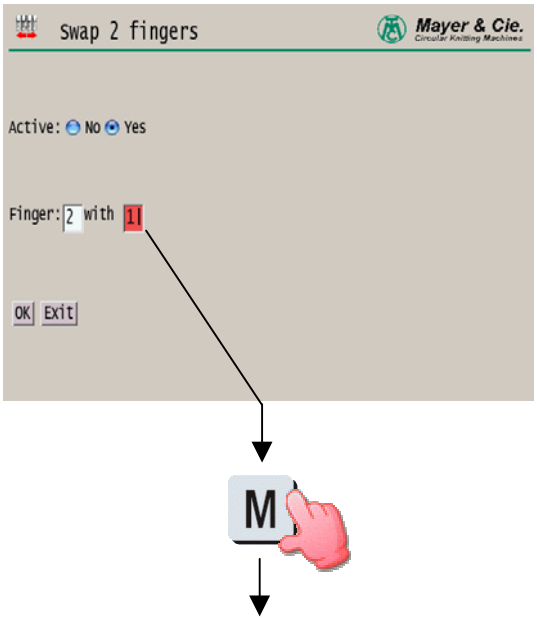
Example: Enter “Finger 2“

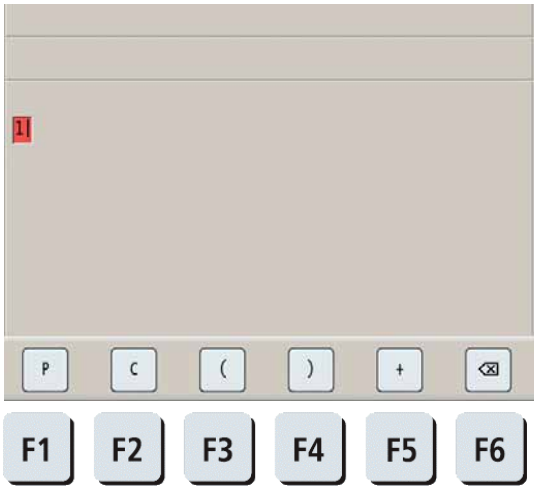






d) Enter the second finger to be swaped

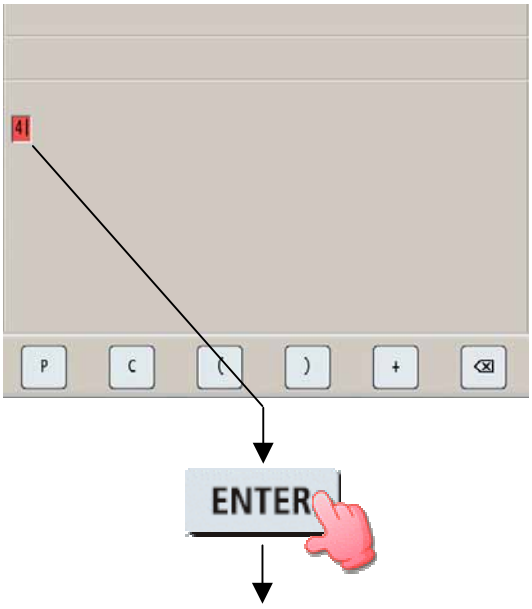


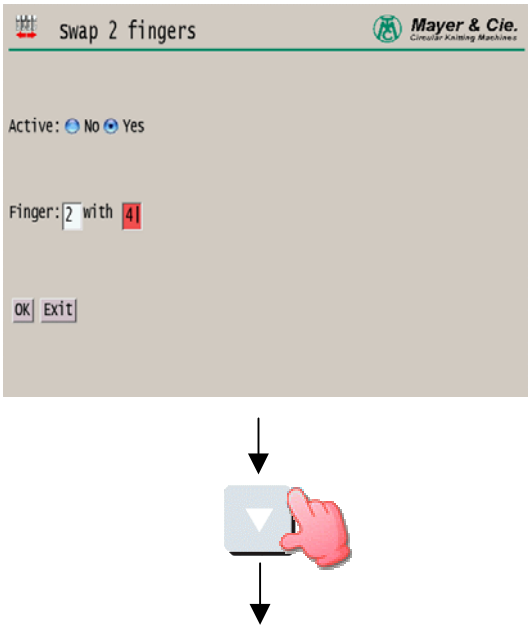


➔ Enter the values via the F keys and the numerical keypad.

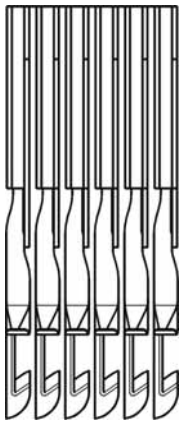
= Delete key

Example: Enter “Finger 4“



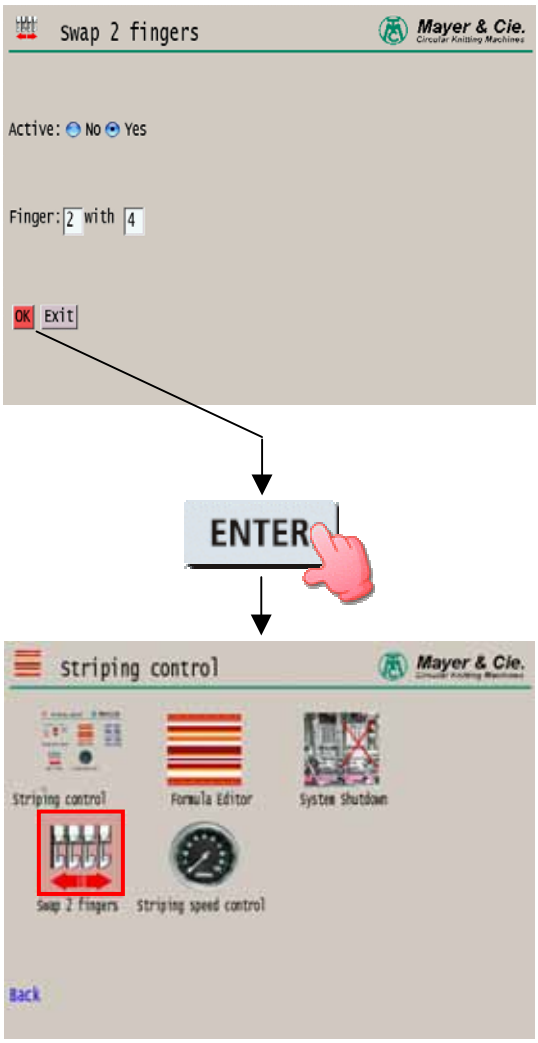


NEW:



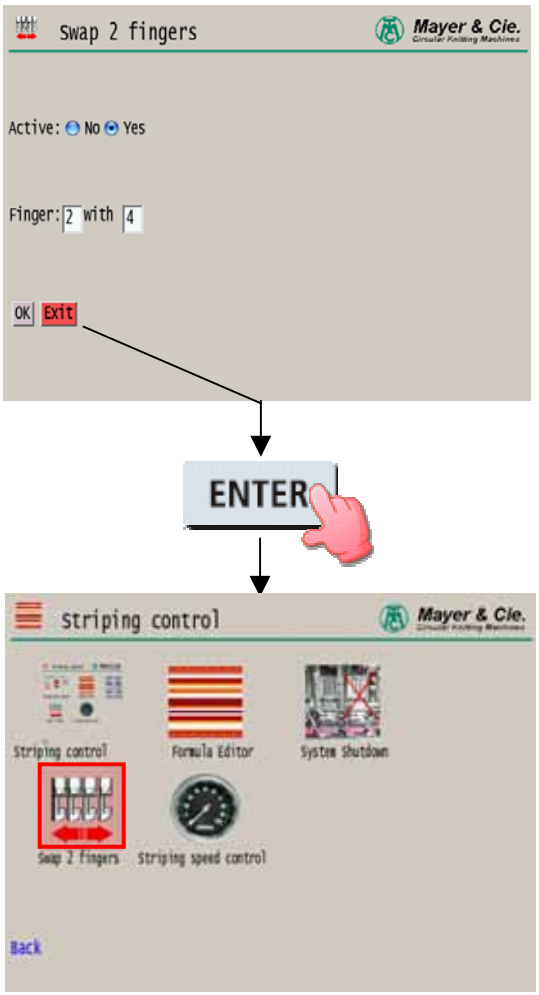
1 4 3 2 5 6
Finger No.
(colour)

e) Press “OK“ to confirm “Swap 2 fingers“



f) Cancel input

- Press “EXIT“ to cancel input



6.5 Striping speed control

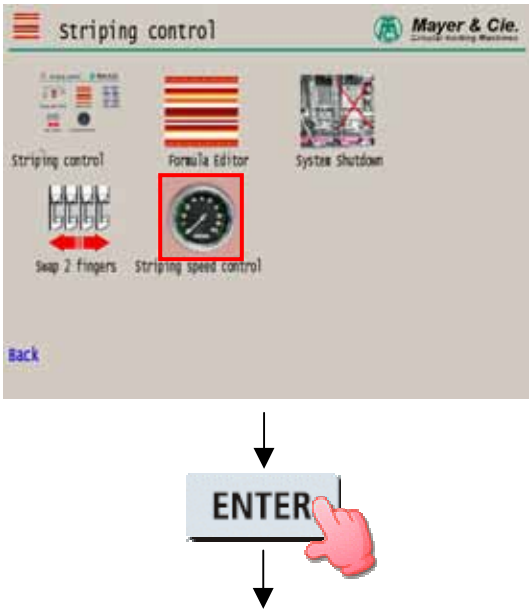
- This menu item can be used to increase the speed in the case of plain knitting to “rated machine speed without striping“. The precondition is that no finger exchange is taking place in the pattern controller.
- The factory-set rated or limit speed cannot be increased with this menu item.

For Example Speeds S4 – 3.2 R

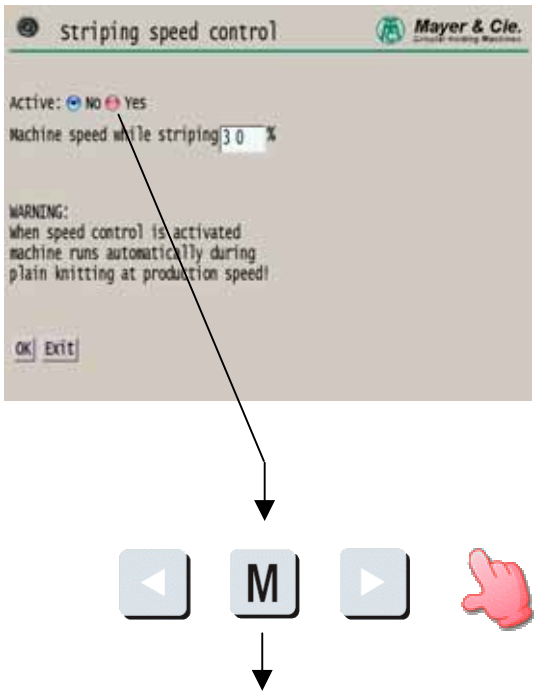
Diameter	Rated speed	Limit speed
Inches	rpm	rpm
26	*25/37	*30/40
30	*22/35	*26/39
34	*20/31	*23/34
*with/without striping		

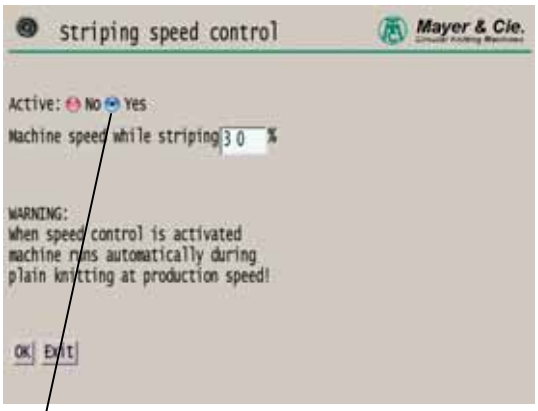
- A rated speed of 20 rpm maximum is recommended in the case of single jersey stripe plating, depending on the yarn type.

a) Select striping speed control



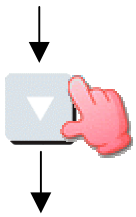
b) Activate “striping speed control“





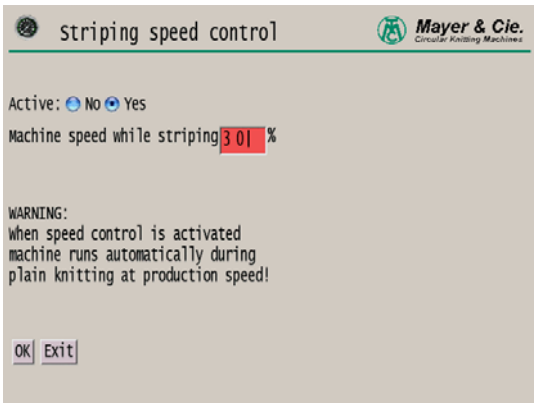
= Speed control activated

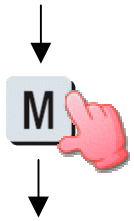
= not activated

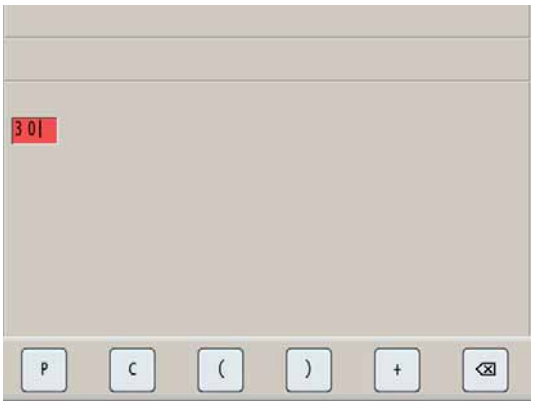


c) Enter the speed

- The input corresponds to the rated machine speed without stripingl in per cent.



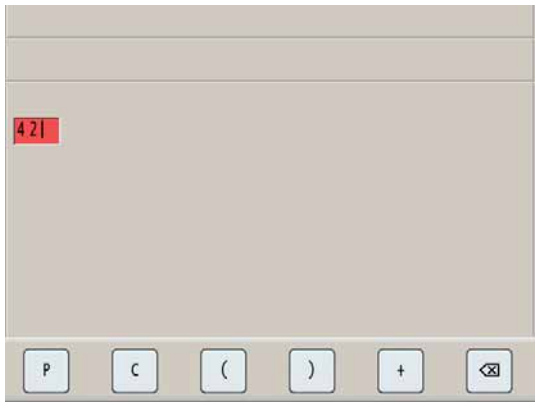


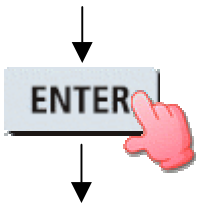


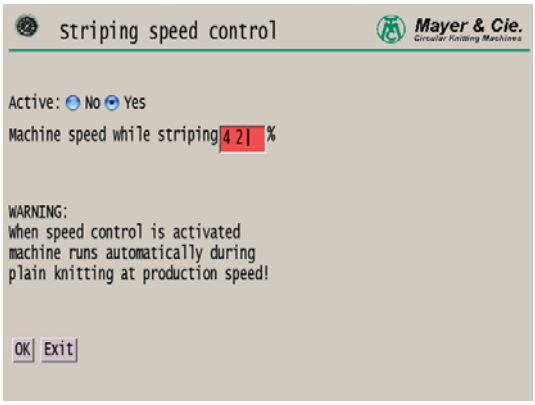
Enter the values via the F keys and the numerical keypad

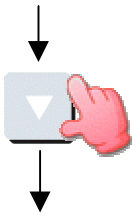
= Delete key

Example: Enter “42%“

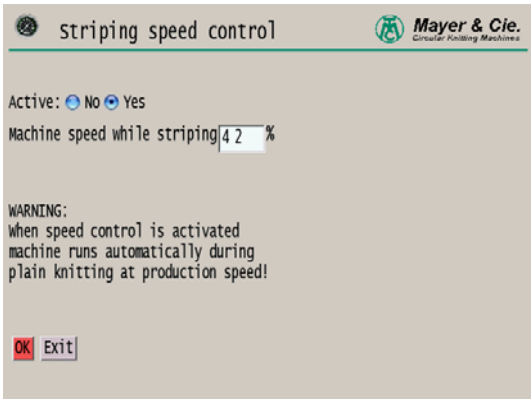


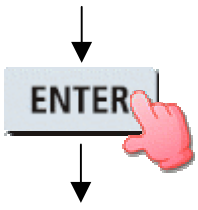


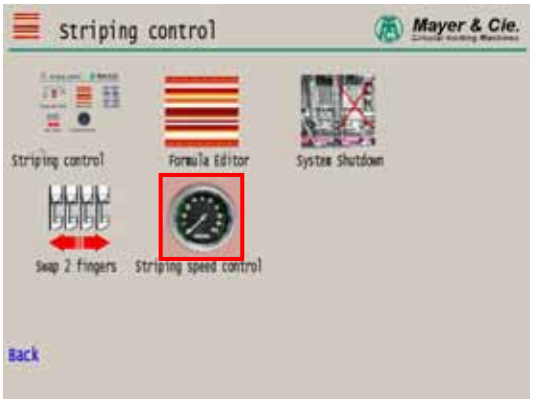




d) Press “OK“ to confirm input







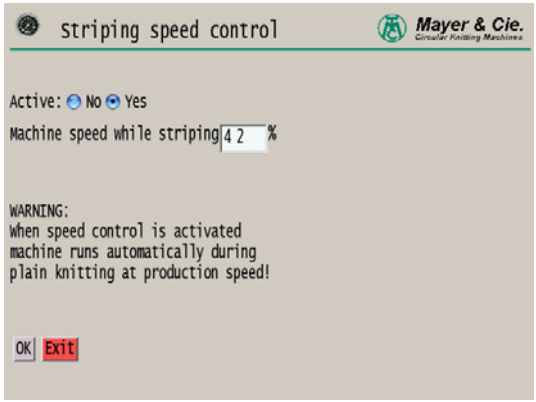
e) Striping speed with the speed control activated

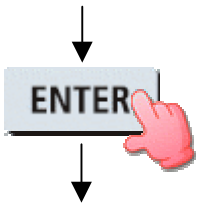
Diameter	Speed* rpm S4-3.2R			
Zoll	30%	40%	50%	60%
26	11	15	19	22
30	10	14	18	21
34	9	12	16	19

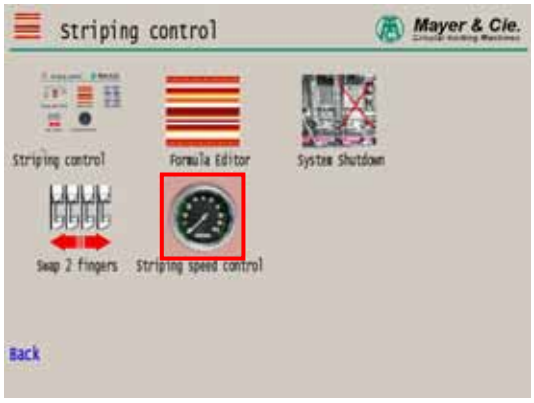
*Slight deviations in the values are possible

f) Cancel input

- Press “Exit“ to cancel input

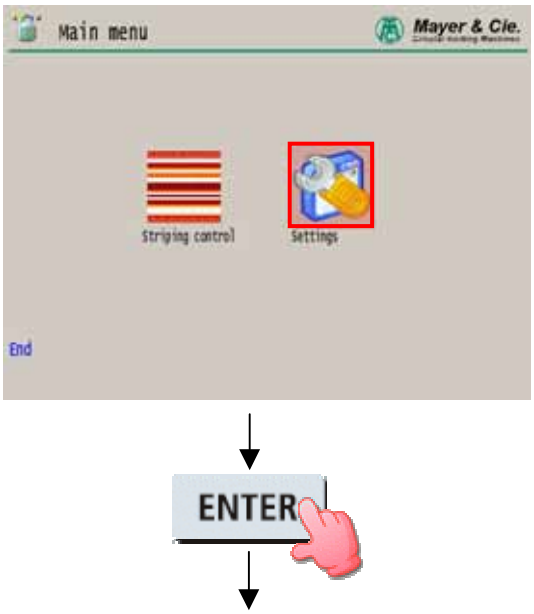




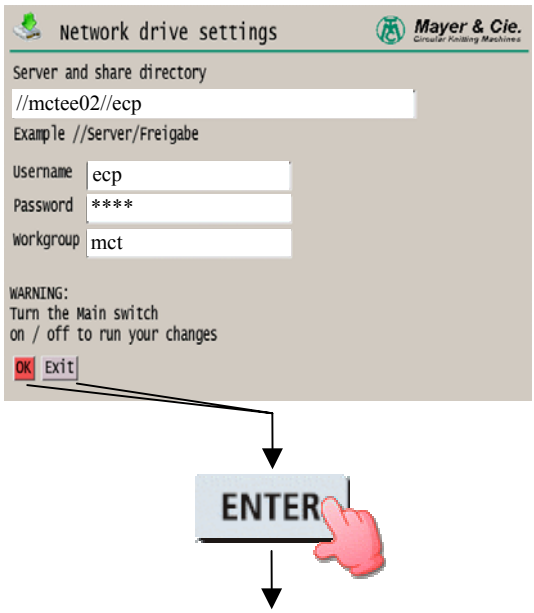


6.6 Settings

a) Choose settings



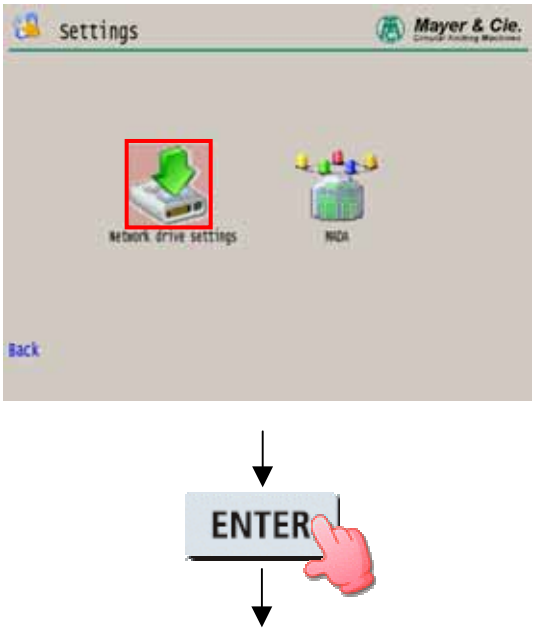
Example:

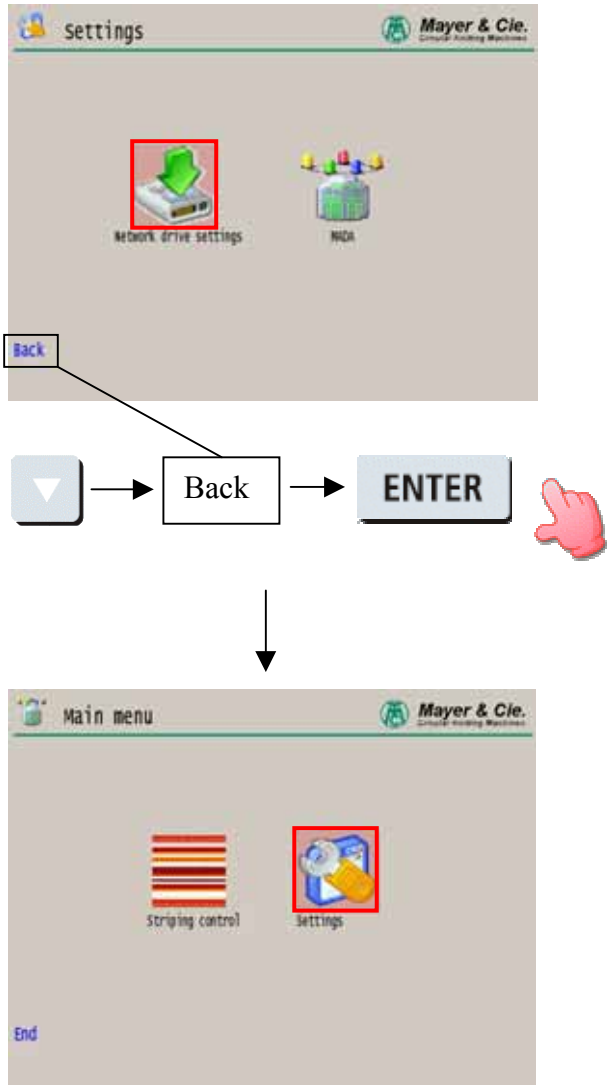


6.6.1 Network drive settings

- This menu item is used to select the network and grant access rights.
- Inputs are only possible via a browser.
- Any changes will be accepted only after the unit has been switched ON/OFF using the mains switch.

a) Choose network drive settings

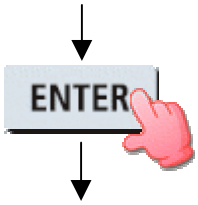


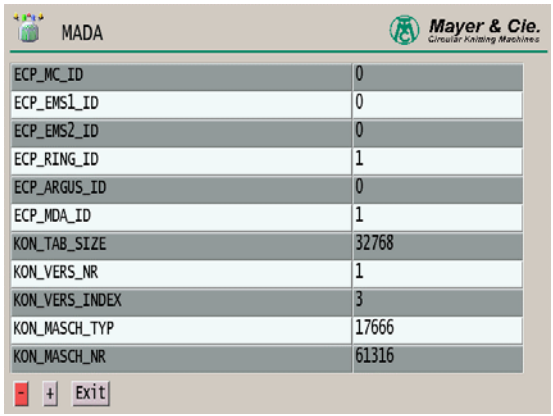


6.6.2 Machine data MADA

- With this menu item you can see the actual machine data and machine settings.

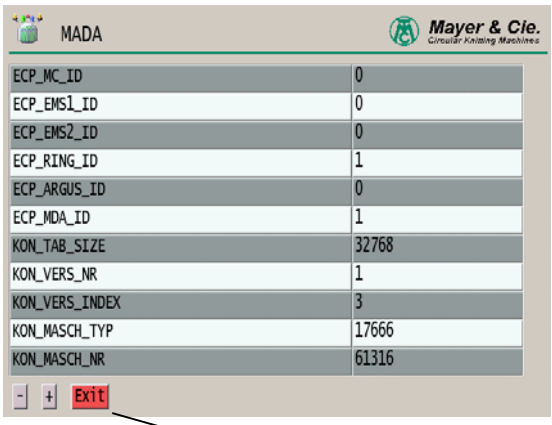
a) Choose machine data

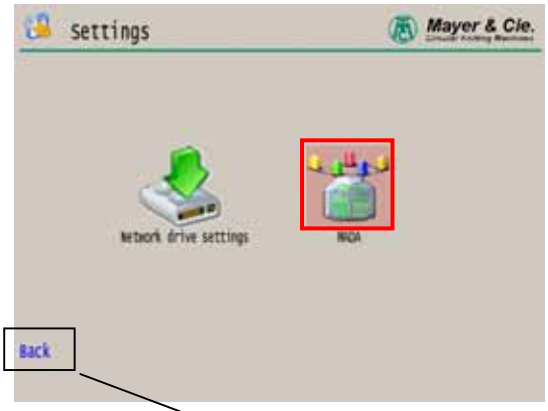


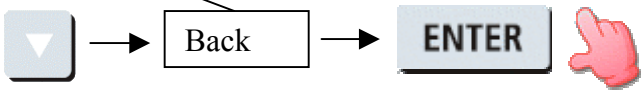


\- / + = look into different pages with ENTER

b) Back into selection menu

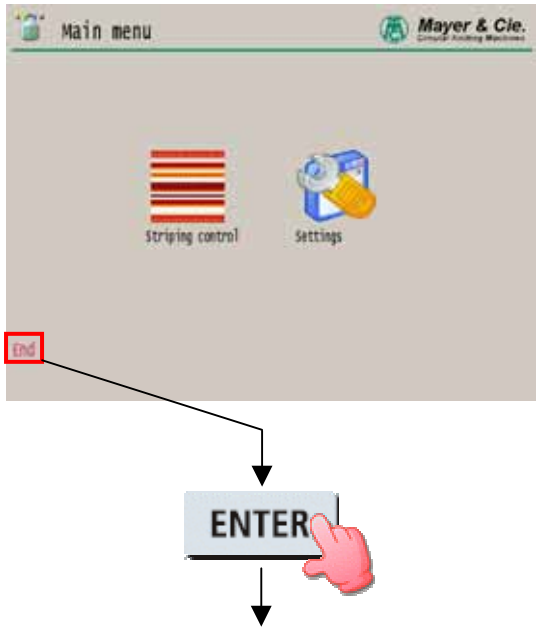






6.7 End

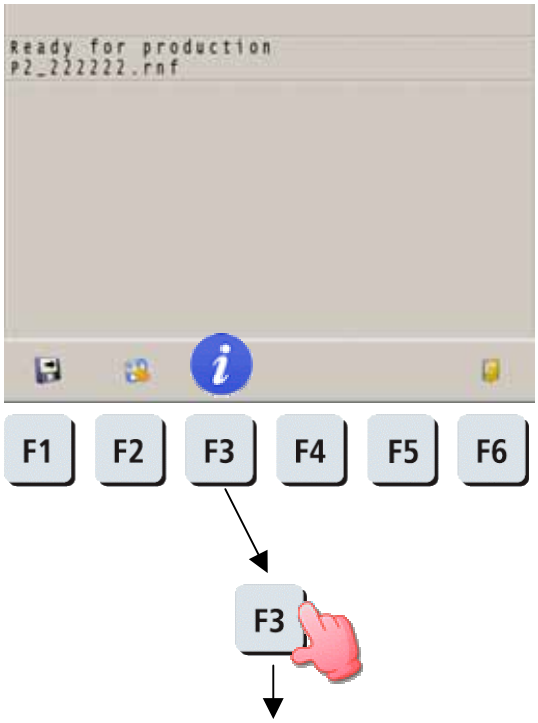
- This menu item is used to switch back to the machine control main menu.



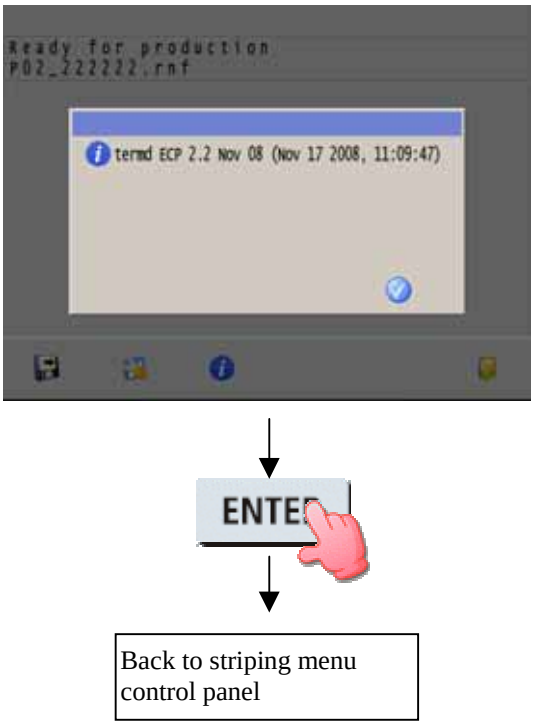
7. Information

- Press Function key F3 to display the installed version of the software.

a) Striping menu control panel



b) Information display



Back to striping menu control panel

Update record:

Update index					
OLD	NEW	Chapter no.	Chapter	Pages	Release date
---	07/08	01 99 33.0	0 - 7	all	26.08.2008
07/08	02/09	01 99 33.0	0 - 7	all	16.02.2009